THE CULTIVATOR.

THIRD] TO IMPROVE THE SOIL AND THE MIND. [SERIES.

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THE CULTIVATOR has been published twenty-seven years. A NEW SERIES was commenced in 1853, and the eight volumes for 1853, 4, 5, 6, 7, 8, 9 and 60, can be furnished, bound and post-paid, at $1.00 each.

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EDITORIAL CORRESPONDENCE.

Notes from the Chenango and Susquehanna Valleys.

Entitled, agriculturally, to a prominent rank among the "Highlands" of this State,—intersected by fertile valleys,—watered by pure and pleasant streams,—less accessible and less widely known, from the fact of a somewhat sequestered position, than many districts possessing fewer natural resources—that region which comprises the border townships in the counties of Chenango, Otsego, Delaware and Broome, and which is drained by the river Susquehanna and its numerous tributaries, has perhaps scarcely the credit her importance really deserves, in the eye of the public at large. As her primitive forests have been cleared away, and her lands more and more largely devoted to grazing, dairying, and in some degree to grain-growing, the absence of railway facilities of transport and communication, has not prevented, if it may have retarded, her progress in prosperity and wealth, nor quenched, if indeed it has really checked, the spirit of enterprise, improvement and public spirit; the stranger is hardly prepared to find, at intervals of ten or twelve miles in these valleys, remote as they seem from our great channels of trade and travel, neat and flourishing villages of from eight hundred to a thousand or more inhabitants, many of them with water-power enough for extensive manufactures, but hitherto almost solely dependent upon the agricultural production of the surrounding country. The first-class butter which is carried from here to the fastidious consumer at New-York will probably have been purchased by him from his grocer, under the pseudo stamp of "Orange County;" and he thus remains ignorant that he is indebted for the luxury he enjoys to the sweet grasses and well ordered dairies of Oxford or Bainbridge or Unadilla, instead of to those of the more widely famous "Goshen."

Although the winter is not the time to visit such a region of country to the best advantage, and notwithstanding other engagements prevented me from seeing much that I should like to have noticed, and compelled me to examine very hurriedly all that I saw—nevertheless the old habit of jotting down what notes I can, enables me to contribute a brief sketch of several very pleasant days among the Farmers of the different townships I have alluded to above; and I do this only with the understanding that our many friends to whom I was indebted for kind attentions, shall pardon the omissions and imperfections they cannot fail to discover in what I have to offer.

Binghamton, a place of eight or ten thousand people, is situated, as will be remembered, at the junction of the Chenango and Susquehanna rivers; and taking the railway extending thither from Syracuse, I left the train at Chenango Forks, about eleven miles above, and proceeded up the valley of the Chenango, exchanging the steam-whistle for the more musical jingling of the sleigh-bells. Entering thus the southwest corner of the county which this river has baptized with its own name, and passing for a considerable distance upon the very bank of the Chenango canal, our first views include an uneven upland whose rolling summits are several hundreds of feet above our road, the valley itself varying in width from something less than a mile to a still greater expanse of fertile flats—a fine farming country, in which the hills are now disputing with the alluvial plain for the preference in growing either grain or grass. At the village of *Greene*, centrally situated in the township of the same name, I had time only for a passing exchange of greetings with Dr. A. WILLARD, an old and active friend of the COUNTRY GENTLEMAN and CULTIVATOR, while if it had been possible to follow the bent of inclination I should have been glad to make the acquaintance there of many others—including, for instance, such farmers as GEO. JULIAND, who cuts I was told in the neighborhood of three hundred tons of hay, and whose long established experience and reputation as a judge and dealer in cattle enables him to carry on a business in this direction involving the purchase and sale of a drove of from one to two hundred head at intervals of from 10 to 20 days throughout the year.

From Greene we proceeded direct to Oxford, the drive from "the Forks" being in all about 22 miles, the sleighing excellent, although upon a very light fall of snow, and the day as bright and clear as possible, and quite as cold as could have been desired. At Oxford I first met HENRY BALCOM, with whom we have had a business correspondence extending over many years and involving on his part many kind exertions for our papers,—and Counsellor PACKER, ex-president of the County Agricultural Society—from whom and the officers of the Town Society, whose names were published in the Co. GENT. of Jan. 24, in-

cluding the President, W. G. SANDS, the Messrs. Bundy, Mr. Shattuck and others, I gathered much interesting information. The village has a spacious public hall, in which in the evening there was a good gathering of the farmers of the vicinity, whose questions, at the conclusion of the lecture, manifested a deep and intelligent interest in the improvement of our agriculture and the problems it involves.

These questions led me in turn to make various inquiries, during the conversation I subsequently had with Mr. Packer and others. It is thought that the permanent grass is here superior in quality on the hills, to that grown upon the flats, although the latter sometimes exceeds the former in quantity produced. Mr. P. mentioned as an example of grass land management, a meadow that was seeded down 22 years ago, top-dressed every alternate year with barnyard manure, carried out in heaps during winter and early spring, and spread as evenly as possible about first of May —say from ten to twenty not very heavy sled loads per acre—followed with a sprinkling of plaster, perhaps two cwt. per acre, which is in almost universal use and exerts the most beneficial effects. An average hay crop on land thus treated, year with year, is probably at least a ton and a half,—indeed it was thought that the best farmers would average fully 2 tons—the common custom being to cut one crop and feed off the aftermath, according to the season. The size of farms here will average perhaps a hundred and fifty acres, running from 80 up to 200, and in some cases, much larger ones; 150 acres will possibly keep, on the average, from 25 to 28 cows in milk, and the farmer will probably raise eight, ten or a dozen calves, and make a ton or two of pork. In former times considerable attention was paid here to fine wooled sheep, but the increasing importance of the butter manufacture has driven them out, and there are now comparatively few sheep of any kind retained. All southern Chenango makes butter very largely, the grain grown being chiefly oats and Indian corn, the latter ground for the cattle and for fattening the swine, while the former is also used for the horses and other stock. The general character of the soil is that of a clayey loam, but in the northern part of the county it is more sandy, and more grain is produced and cheese is more a staple than butter. It is becoming quite frequent for farmers to sow an acre or two of corn broadcast about the first of June, to cut for fall feed if required during August and September, or allowed to stand till frost comes and then cured for early winter use.

As to the product of good Dairy farms, Mr. JOHN SHATTUCK, who resides just over the Norwich boundary line, was kind enough to give me the following statement with regard to the number of cows kept by him in 1860, and the amount and value of the butter made. It may be remembered that we published last year (see Co. GENT., vol. XV, p. 351) the statement of Mr. S. for the preceding season, accompanied with brief details of the manner of making, feeding, &c., and we trust Mr. S. will excuse us for reminding him here of his promise to let our readers hear from him occasionally hereafter upon dairy and other farming:—

THE DAIRY OF MR. JOHN SHATTUCK OF NORWICH.

Whole number, 30; of which 22 were full grown cows and 8 heifers; 7 two years old, and 1 three years old. They commenced dropping their calves the first of March, and the last one about the first of June. The cows were fed what good hay they would eat, and about one quart of corn-meal per day each, from the time they dropped their calves until they could get their living on grass; and this fall and winter they have been fed on cornstalks and hay. I sold four cows early in the fall, that I think would have made 100 lbs. butter to the present time.

Amount of butter sold, 5,378 lbs. at 25 cts.	$1,344.50
do. do. used in family and on hand, 350 lbs., 25 cts.,	87.50
Nine calves raised on skimmed milk, and sold at $5 each.,	45.00
One calf raised on skimmed milk, worth $20,	20.00
20 deacon skins sold for 6s. each,	15.00
14 spring pigs, bought the last of April, cost $30, total weight 3,036 lbs. sold at $6.50 per hundred, $197.34	
Fed $25 worth of corn, 25.00	
Total value for milk fed, $172.34	172.34
Total amount,	$1,684.34

Making a total average to the cow, heifers and cows, of $56.14 Calling the eight heifers equal to five cows, which would be about a fair average, would give to each cow, $56.38. Total quantity to the cow, 190 lbs., and calling the heifers as above, it would give to each cow 212 lbs.

I should remark in passing that I was unable to visit the town of Norwich at all, as I should have been glad to see many of its farms and dairies if time had allowed.

It was Tuesday night (Jan. 22) that I spent at Oxford. The next day, after a brief call with Mr. Packer upon Judge CLARKE, whose horticultural tastes lead him to the perusal of our columns, and who reported the last fruit crop as unusually abundant in that region as it appears to have been elsewhere,—with President A. J. SANDS of the Bainbridge Farmers' Club, I placed myself in a light cutter behind an active team to cross the hills that separate the Chenango and the Susquehanna—the day again bright, clear and cold enough to constitute almost the perfection of winter weather. With this drive I shall be forced to postpone until another week the conclusion of my "Notes"—the ground embraced extending beyond the limits now at our command.

L. H. T.

Farther Notes from the Susquehanna Valley.

I resume my narrative where it was interrupted last week, as we were setting out on our fifteen mile drive, (or thereabouts,) from Oxford to Bainbridge, mostly up hill or down, although the acclivities are not generally very rapid, and a majority of the hills I think are arable even to their summits—bringing us by degrees into a country, as my companion, Dr. SANDS, remarked, more recently transferred from the hands of the lumberman into those of the Farmer, its valley lands many of them none the better for a lumberman's style of farming, and its hillsides as yet scarcely as well rid of their stumps as they probably will be 10 or 20 years hence. It has been found, now that the timber has been cut for quite a number of years, that the land longest cultivated appears to be growing *wet*. In grass, for example, the wild sorts that are fond of cold, soggy spots, are becoming often sad intruders where good hay has heretofore been produced. The value of the land is not often such as to encourage one in undertaking drainage of a very expensive kind, but it appears to have been advantageously tried in several instances, and I suppose there is no better remedy to be recommended. If those who have made the experiment would favor the readers of the Co. GENT. with the facts of the case, including the cost of the process from beginning to end, it might have a good effect in showing others that this is a more feasible cure than many have been inclined to suppose.

After accomplishing perhaps two-thirds of our distance, we called, in passing, upon NELSON IRELAND, whose farm of about 240 acres, lies in the western part of the township of Bainbridge. Mr. I. is one of those who has drained to a considerable extent—having laid stone underdrains about thirty inches below the surface of eighteen acres of land, at intervals of about two rods. By the employment of the subsoil plow to loosen up the ground,

fully one-third the expense of digging had been saved, and the estimated cost of the drain reduced to the vicinity of 31 cents per rod. The custom in plowing had been to penetrate four or five inches, but Mr. I. has been venturing deeper down, and has found the crops take kindly to the under stratum of light colored clay, after a winter's exposure of it to air and frost, the present yield generally better rather than worse, and a deeper plant-bed ready for future operations. He proposes extending the seven or eight inch system over a wider surface every year.

Mr. Ireland keeps ten cows and winters about a hundred sheep. Tried last year cutting cornstalks, straw and hay, and mixing them wet, as feed, and considered the labor of this preparation well repaid, but in the abundance of fodder the present winter, has not cared to undertake the task. The sheep are descendants of some "New Oxfordshires" purchased four years ago, of J. T. Andrew of Connecticut, which are said to have given very good satisfaction, both as regards the full-bloods and their crosses upon smaller sorts. The main sales from the farm, are the butter made, and the young stock grown. With reference to the condition of farming now and heretofore, I was assured that it might be considered as progressive—the average of crops at the present time being rated at perhaps one-third larger than it was fifteen or twenty years ago, with the exception of potatoes, which have been running down in yield, and rye and wheat, which latter, when sown on newly cleared land 25 years ago, produced as much probably as they do now.

Resuming our seats after a hearty farmers' dinner, we reached our destination, the residence of the Messrs. JULIAND, father and son, at Bainbridge, before the afternoon had far progressed. Jos. JULIAND 2d, is here endeavoring, upon a pleasantly situated farm well adapted for the purpose, to do his share toward the improvement of the stock of the adjacent country, fully believing that a calf sired by a first rate Short-Horn, will more than repay the farmer for its extra cost, before many months pass by, and able to support his theory, I found, by considerable practical experience in its workings. Together with several full-blooded Short-Horn Cows, he has a bull calf of good promise, called "Duke of Oxford," sired by Mr. ROTCH'S "Lord Oxford," of which latter I shall have more to say anon—while "Sultan," a bull of Mr. ROTCH'S breeding, sold by Mr. J. two years ago to our friends of the Wapping (Mass.) Farmer's Club, did not take his departure without leaving a representative in "Young Sultan," a year old in April last, now weighing perhaps 15 cwt., and bidding fair to equal the merits of his sire. Mr. J. also indulges his taste for pets in a rabbitry, including several varieties, and in other similar directions; his barn is worthy of particular notice and description, but I shall speak below of several prominent merits which it possesses, in common with two or three others I had the opportunity of visiting, only acknowledging at present my indebtedness to Mr. J. for the various measurements which will appear in a subsequent paragraph.

The Bainbridge Farmer's Club, upon whose invitation I had first undertaken the trip, held its meeting that evening in the largest church of which they could obtain the use; I regretted to learn, however, that many even then were unsuccessful in getting places, while the interest manifested on the part of the whole audience, together with the fact that it included many farmers from a wide circle around, who had not previously taken part in the proceedings of the Club, led me to hope that the results of the gathering might be promotive of its interests, and tend to unite and strengthen the feeling of energy and enterprise which is already producing its effects upon the agriculture of the Susquehanna Valley. After a session of nearly two hours, it was announced that the subject of the lecture, the improvement of American farming by comparison with that of Great Britain, would be discussed at length in regular Club meeting Saturday night; and I am since informed that this meeting was the fullest and one of the most *earnest* in the records of the Club, which has been in existence now for several years—it would have been a source both of instruction and pleasure to me, to hear through the medium of such a debate, how far my own deductions and hints had harmonized with the practical experience and judgment of those who took part in it.

The next morning we had only time for one or two hurried calls—at the farms of Dr. A. J. Sands, Messrs. John Banks, Joseph Bush, Cyrus W. Hickox and Robt. Pearsall—while the original plan, defeated for lack of time, included a number of others, for instance Messrs. A. N. and N. A. Humphrey, Ira Hyde, Charles Bixby, Jerome B. Sands, etc. More than anything else, I was interested in the examination of the large and commodious *barns* at the points we visited. That of Dr. Sands, the newest, is of more expensive character than the others, more so perhaps than many farmers would care to build, but the money has been put to good use in securing the utmost number of conveniences for the farmer, the comfort of his animals, and the perfect protection and preservation of the manure. Dr. S. has promised us a plan for publication, and I shall not therefore attempt any description at present, beyond referring briefly, among its more prominent features, to the loose boxes for the horses, with their facilities for both feeding and watering; the excellent cellar arrangement for stock; the poultry room; the attention given to tight floors and complete ventilation, together with the tasteful and commanding exterior. The teams drive in above, and what lifting remains to be done in stowing away hay is performed by a horse-fork; while it is proposed hereafter to utilize the power of an adjacent stream by making it unload the hay, do the farm thrashing, grinding, stalk-chopping, &c.

In other instances similar improvements are also carried out, in one or two by the remodeling of old barns, as at the farms of Banks and Juliand, in which cases a most remarkable saving both of time and feeding material has been effected over the old plan of two or three scattered buildings, with open yards draining out all the virtue of the manure from under the eaves into roadside ditches, watering the animals once or twice a day at some almost inaccessible point, and requiring the services of a man in winter to look after things well and satisfactorily, whose assistance can now be almost entirely dispensed with.

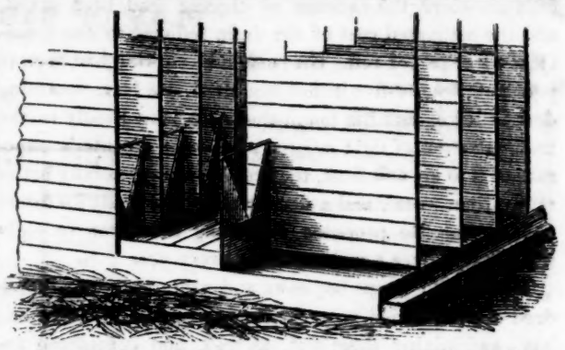
One feature in these barns was *entirely new* to me, and seems worthy of minute description, although I may fail, even with the aid of a hurried sketch, to make the matter as clear as could be desired. The basement, which in side-hill barns runs partially under ground, opens with sliding doors that may be closed at pleasure, on one side into the yard; there is no floor, with the exception of the well compacted and water-tight soil, and on this floor litter is abundantly scattered, and here the cattle lie down night or day as they choose, the deposit of manure remaining undisturbed as long as necessary, but unfrozen, except crusted over at top, so that teams may drive in, and cart it out during the coldest weather if the accumulation be-

comes too great. When we turn to the *feeding arrangment*, which is the novel part of the whole system, we find it consists of a series of *Open Stalls*, as they are called, constructed as shown in the engraving, in two rows face to face—perhaps 10 or 12 stalls, or even more, in each row—with a wide manger or feeding-way between, into which the fodder or meal, or whatever the cattle have, is admitted from above, the ends closed by movable boarding, so that it may be swept out if occasion requires. These stalls are too narrow for the animal to lie down in at all, and each goes out and in at pleasure. The floor slopes about two inches from the head backward, and in going out and in, the animal cleans out its own droppings, so that no labor is required in this respect. The triangular space through which they put their heads into the manger, is too small to admit of their getting their feet into it, while, by the projection of the side of the stall 15 or 16 inches into the manger, they are completely prevented from interfering with one another, as regards the head and horns. The cattle are never tied in the stall.

The first objection urged against this system before one sees its operation, is that the cattle in the stalls would be injured by other's "hooking" them, and some have said that no printed description of the open stall would convince any man that such would not be the case. The truth is, however, that *the elevation of the stall floor*, 16 to 18 inches above the ground, a stick of timber or other step being provided, as shown in the above cut—prevents this hooking, because the animal outside, to get at the one inside, must put its fore feet upon the step, thus raising the head entirely out of the downward position in which it must always be put for "hooking" purposes.

The advantages of the system, are the wonderful saving of labor effected in feeding and cleaning out, as compared with other stalls; and, as compared with feeding boxes, in the fact that each animal is protected in obtaining all it wants, and "underlings," instead of being forced to eat the scanty leavings of the stronger beasts, have an equal chance at the first and best. Indeed, when the cattle get to running around and annoying one another, the weaker will go into these stalls for protection at once. The system is thought more healthy also, because water troughs are kept close by the stalls, and the animals while at their food are seen to come out at intervals for a drink, and return to the manger; while it is noticed on the old plan of taking them out to water at night and morning, that after a night's abstinence and a dry feed with daylight, they will fill themselves so full of the almost freezing liquid as to chill the whole system, and perhaps prevent their drinking much when again taken out at a later hour. They would then really have but one long drink during the twenty-four hours, and it is easy to see that this cannot be as natural or healthy as it is to leave them free to quench their thirst before it becomes immoderate, and as often as Nature may dictate. Salt is also kept within their reach, as well as water; the floor is littered whenever necessary, perhaps twice a week; the manure from the horses comes down into the same place, and not a drop or an atom of the whole is lost.

With the end view of a range of these stalls, one of which is left open to show its interior, I give the dimensions as they are constructed by Mr. Juliand for ordinary cattle, and of smaller size for young stock. The stall partitions may be carried up to the floor timbers above or not, as is desired, and the whole can be very roughly and cheaply or quite neatly and substantially built, according to one's preferences and means. It was Sutton Pearsall of Morris, I was told, who first got up this kind of "open stall," many years ago, and it has since been growing in popular favor until it is now adopted in nearly all the better and newer barns in this locality, although scarcely, if at all, known anywhere else. I thought its merits well worth bringing it into more extended notice, although they may be less apparent to the reader than they are to the visitor. Mr. Sotham referred to the subject in a letter published in our columns about four years ago, expressing a very favorable opinion of the plan, but not describing it at length.



DIMENSIONS—Stalls for Cows, or Steers of Medium Size.

Partitions between stalls—3-inch scantling, boarded on each side—distance apart 2 feet 10 inches from center to center.
Length of stall 5 ft. 6 in. to the manger—side of stall projects into manger 1 ft. 4 inches.
Manger—6 ft. 6 in. wide from center to center—1 ft. 11 in. high on outside—1 ft. 1 in. high on inside.
Floor—16 to 18 inches high from ground—with step—slopes about 2 inches backward from manger.

In the engraving, the end is taken out of the manger to show the heads of the opposite stalls, and the first stall at the right hand is represented without siding—the triangular space through which the cattle insert their heads into the manger is 4½ inches wide at bottom, instead of coming quite to a point, as might be inferred from the cut.

Dimensions of Similar Stalls for Calves.

Width of stalls, 2 feet, center to center—length, 4 feet 4 inches to manger—width of manger, 4 feet from side to side—height of manger outside, 20 inches, inside, 12 inches—sides of stall project 11 inches into manger, to keep each animal's feed separate when so desired. An aperture in the floor above corresponds in width with the manger, through which hay, &c., is put down for the use of the cattle.

The barn subject has occupied so much of my space, that I shall have room but for a word with regard to the excellent Devon Stock of Mr. John Banks, of which it is sufficient to say that it comes from the well known herd of R. H. Van Rensselaer of Morris,—and my reference must be equally brief to the enterprise he has shown in the management of his farm affairs during the few years it has been under his charge—his hay crop, for instance, being now about the same in amount, I understood, as in former years, although obtained from about *one-half* the the surface—the other half having been let for pasturage. Here also I saw some of the Connecticut stock of Bronze Turkeys, and was told that the weight of four young ones hatched in June last, would now average 21 lbs. each.

I had hoped to close these Notes the present week, but find that the remainder—including a day at Unadilla, and a drive to Morris—must be deferred until our next. Meantime, my thanks for their kind attentions are due to the officers of the Bainbridge Farmer's Club, together with Col. Juliand, Sr., Jas. M. Banks, Esq., and others of the same place.

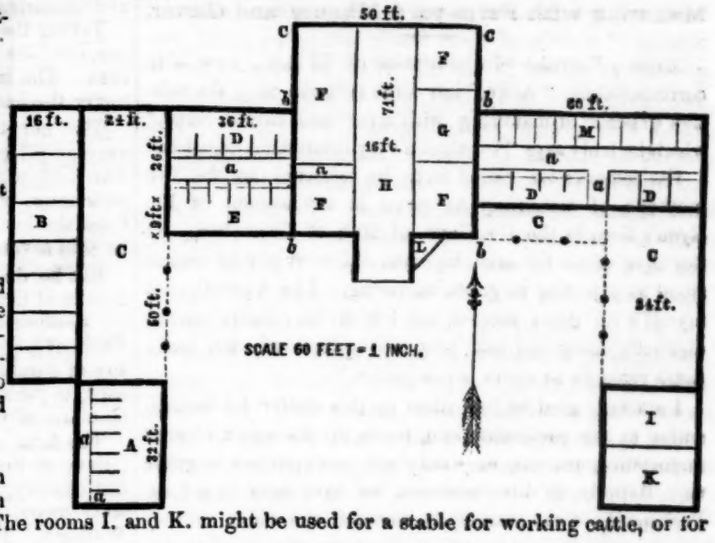
L. H. T.

New Seed Drill.—Mr. Wm. Slingsby of West Willington, Conn., informs us that, having experienced great difficulty in sowing carrots, he set to work to get up a machine to obviate the difficulty; and that he thinks, after last season's trial, that he has invented a drill which will sow all kinds of seeds in the best manner. Any one wishing further information, can address Mr. S. as above.

PLAN OF BARN AND SHEDS.

MESSRS. EDS.—I send herewith plan of cattle stables and barn.

A. Stable for farm horses.
B. Row of boxes for bulls, colts, &c.
C. Open sheds.
D. Rows of double stalls for cows, &c.
E. Row of single stalls.
F. Bays or mows.
G. Meal room, with stairs to root cellar.
H. Threshing floor.
I. Room used as tool-room for garden, into which it opens.
K. Room used for fowl house.
L. Shed over well.
M. Row of calf pens.
a. a. Passages.



The main barn, 35 by 50, (corners marked b.) is 16 feet posts—b. b. c. c. is an addition, the threshing floor built out with 16 feet posts—the bays with shed roofs to the roof of threshing floor. The box stalls have also a leanto roof. The other parts all 14 feet posts and double roofs, except part of E.

The root cellar is under b.b. c.c.

The stalls, &c., might of course have been more regularly arranged, had the plan been matured before the buildings were begun. The rooms I. and K. might be used for a stable for working cattle, or for some other purpose as convenient.

Lumber is cheap here, and this range of buildings has cost, first and last, about $2,500. The covering is rough hemlock, battened with pine. The foundations all laid in mortar. I do not believe it could be done elsewhere, however, for the same amount.

P. Q.

PRUNING THE DWARF PEAR.

[We copy the following brief and clear directions from the new nursery catalogue of THOMAS & HERENDEEN—they may be useful to those who do not wish to examine elaborate treatises on the subject.]

Without as good *cultivation* as the farmer gives to his corn and potatoes, the dwarf pear cannot succeed: and it will after a while fail, if not properly pruned. With these requisites fine and continued crops may be expected, if the soil is good.

The accompanying figures illustrate pruning. Fig. 1, is the two year dwarf at the time of setting out. The dotted lines show where the branches should be cut off at the time of planting. *This must be done without fail.*

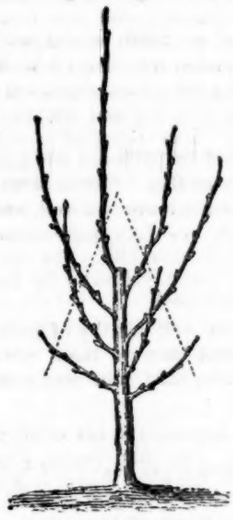


Fig. 1.

Fig. 2.

Fig. 2, represents the tree after the shoots have grown again, or after it has made its third summer's growth. The dotted lines show where it should be cut back the next spring, or one year after it is set out. The same general course must be pursued for every pruning afterwards—namely: thinning out and cutting back any secondary or other branches, that seem unnecessary, to admit light and air, or to give vigor or symmetry to the tree, retaining the pyramidal form.

T. G. Yeomans, a very successful raiser of dwarfs, remarks: "No one prunes too much."

Fig. 3.

Fig. 3, is an accurate portrait of a Louise Bonne of Jersey dwarf pear tree, eight years old, which has been well pruned, and bearing two bushels of pears.

Grape Growing in Orange County.

This is a great grape growing region, and this county is already celebrated for its fine Catawba and Isabella wines. Grapes do not suffer from the extreme cold of winter, as much as from wet in summer. Last season, 1860, was wet from 20th July to the end of the season, and the crop ripened late, Catawbas on the 6th and Isabellas on the 11th October, thus reversing the order of ripening. The new varieties of grapes appear to do well here. I am keeping records for future publication. Our latitude is 41° 30' north. Wild grapes grow in great abundance all over our mountains and valleys—some of them make a delicious wine. W. A. WOODWARD. *Mortonville, Orange Co., N. Y.*

[For the Country Gentleman and Cultivator.]

Manuring with Farm-yard Manure and Clover.

Messrs Editors—In your issue of 3d inst., your able correspondent, "Acer," has some remarks on "the relative expense of manuring with dung and clover crops," which he truly says "involves a very interesting question."

His remarks are called forth by reference to the two methods of manuring, as given in my account of Mr. Ryan's farm in the Co. Gent. of 20th of December. At the close of his remarks, he says: "I must not be understood as objecting to green manuring. I have practiced it myself with great success, but I wish its relative merits distinctly measured and properly understood, and make these remarks to incite investigation."

I am very glad he has called up this matter for investigation at this particular time, for in the discussion of such important questions, we want *facts*, not opinions, to guide us. Happily, in this discussion, we have facts to aid us. Perhaps there can scarcely be found in the whole country two farms better calculated to illustrate the relative expense of manuring by the two methods, and the profits resulting therefrom, and the effects upon the fertility of the soils—not for one year, nor for ten years, but during periods of time sufficiently long to fully settle these questions upon soils—like those of Mr. Walker's and Mr. Geddes' farms—farms, to which I alluded in the Co. Gent. of 20th of December.

To give the facts in relation to the whole matter under consideration, so as to be fairly understood, it will be necessary to go into a somewhat detailed history of the length of time the two farms have been under cultivation, the method of manuring, the crops grown, and original quality of the land.

Mr. Walker's farm was originally owned and cleared of its forest growth by the late Rev. Timothy Walker, great-grandfather of its present owner, Jos. B. Walker, Esq. It is now some over 130 years since it came into the possession of the Rev. T. Walker, who was the first and only minister of Concord for fifty-two years.

The farm contains 320 acres—112 of which is plowable intervale land, lying on the south side of the Merrimac river. The soil is alluvial, fine, and of great depth, and was originally as fertile and productive as were the best soils of "old Genesee," when first brought into cultivation; and it is equally so now, when properly manured and subjected to a judicious rotation. It is of this intervale or bottom land that I shall write, which has now been cropped with corn, potatoes, flax, oats, grass, &c., for over 120 years.

Acer says—"The cost of the clover crop is copied from Mr. Geddes at $2.32, but at least $2 more should be added for plowing in—say $5 per acre for manuring with a crop of clover"—or in other words, the manuring and plowing an acre, for planting, costs $5.

Now for the cost of manuring an acre with stable manure and plowing the ground for planting, as per Mr. Walker's figures. He deeply plows his sward land in the fall. In the spring the manure is drawn on and spread, and the land is plowed four or five inches deep with a horse plow and then harrowed. His rule is, thus to prepare six acres annually for corn. The expense per acre, he puts down as follows:

Breaking up the ground in the fall,	$ 6.00
Ten cords of manure	40.00
Drawing and spreading	5.00
Plowing and harrowing in the spring,	2.00
Total,	$53.00

In consequence of weeds and grasses derived from seeds in the manure, he is obliged to cultivate and hand hoe the crop three times, at an expense of $8 per acre. His corn averages 55 bushels; second year 50 bushels of oats, and for the six following years the land averages one and a half tons of hay per acre—then comes the "breaking up and manuring" at an expense of $53 per acre.

Taking the eight years rotation, the profits average $12 per acre—or pay the interest of $200 per acre at six per cent. The land is worth or would sell at private sale, or under the hammer, at least for $150 per acre.

The net income, above stated, was made upon the average price of corn, oats and hay, at Concord. From Jan. 18th to May 1859, Mr. W. sold fifty tons of hay at an average of $14 per ton, and it was upon that price he fixed the income per acre—but from Jan. to May 1860, he sold seventy tons at $17 per ton.

But he does not sell all his hay. He keeps two horses, 2 yoke of large oxen, cows and young stock, in the whole 30 head, and several swine. From these, with the addition of large quantities of muck he is not under the necessity of purchasing very largely of stable manure at $4 per cord, to *finish out* the manuring of his six acres of corn land annually.

The farm owned by Mr. Geddes was purchased by his father, of the State of New-York, near the close of the last century, and has now been under cultivation some sixty years, about half as many years as that of Mr. Walker's. In 1849 the lamented Prof. Norton analysed a sample of the soil and underlying rock of one of Mr. Geddes' fields. It is unnecessary here to give the results of the analyses. The field then had been under constant cultivation for fifty years without animal manures. The first crop of wheat taken off this field was in 1799. This system of manuring with clover and gypsum only, has now been carried on for sixty years, apparently without any injurious effects. Wheat, corn, barley, oats, hay and pasture, have constantly been taken from the soil for that period of time.

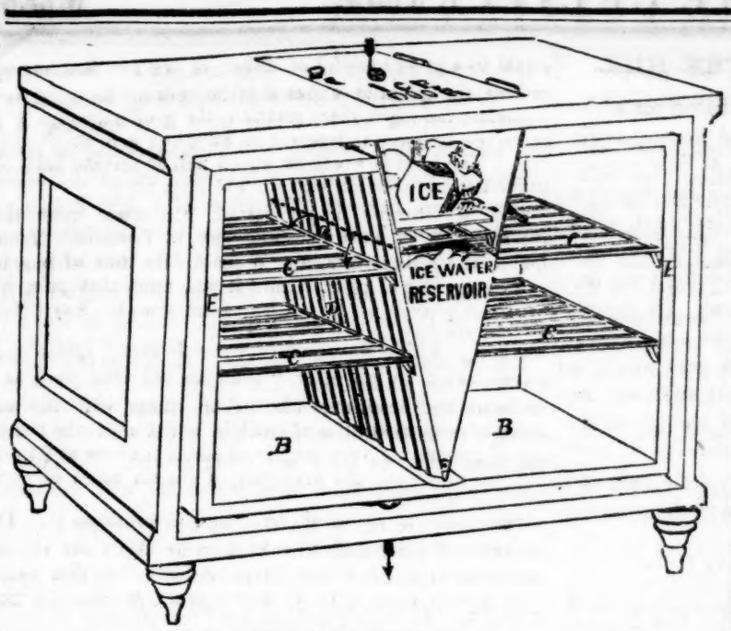
In 1859 it was in barley, last year in wheat, a good crop, 25 bushels per acre. Great care is taken not to manure this field with anything but clover and gypsum—as it is intended to see how long this system of fertilizing will continue to improve the crops under this system of rotation.

Mr. G.'s corn the past season was on a 33 acre field, this measurement going to the centre of the (zig-zag) fences all round, and including the lane on one side; but calling the field 33 acres, the yield was 67½ bushels to the acre, (135 bushels of ears,) besides selected for seed and traced up enough for next year's planting, and not measured. This field, the previous year (1859) was mowed late in June and early in July, and was intended for seed, but the grasshoppers so injured the crop that about only eight acres were cut for seed, the rest fed and trampled down by his cattle late in the fall. Last spring the clover started early and he turned on the field 107 ewes, and pastured them there until the 6th day of May. The field was then plowed in a single land, with care, harrowed well, and marked both ways—the rows 3 feet by 3 feet apart—from 5 to 7 stalks were suffered to grow in each hill. The kind of corn planted was large, eight-rowed yellow. By the 8th of October the corn was all harvested.

But here is one important point well worthy of note. There was no hand hoeing, except two or three rows around the outside, that could not be fully cultivated with a horse.

The cultivators used by Mr. G. are made in his vicinity, having fine steel teeth, sharp, and with thin shanks, that the removed soil may fall nearly in the place where it was found. The field at the time of cutting up the corn was *remarkably free from weeds*. Had this field been manured with barnyard manure, this mode could not have been adopted. In 1859 he had ten acres of corn on land manured from the barnyard, and though twice hoed by hand, and free from weeds on the first day of July, it had more weeds at the cutting up of the crop, on one acre, than the 33 acres had on the whole field last season. The yields were about alike per acre. This point is important—clover plowed under does not seed the land with weeds.

By looking back to Mr. Walker's method of culture, he puts down the expense of three times cultivating and hoeing an acre at $8. It must have cost Mr. Geddes less than



BARTLETT'S REFRIGERATOR.

Bartlett's Refrigerator.

Those who intend "in time of winter to prepare for summer," will do well to provide themselves with a good refrigerator—especially as the one we are about to recommend answers an excellent purpose for protecting household articles against freezing in winter, as well as from the heat of summer.

Bartlett's Refrigerator,* from the limited experience we have had with it, appears to be an admirable one. At first sight one is struck with its handsome appearance—neat in form, painted a handsome oak color, the doors with white porcelain knobs, and the reservoir with a silver plated faucet, it will grace the best kitchen hall. Standing on castors it is easily moved from place to place. The figure shows its interior construction, and the arrows the motion of the air currents. The small ventilator being opened at the top, the cold air passes from the ice chamber into the provision apartments, and out at the bottom, the air passing in from above to supply the vacancy—the increased weight of cold air causing a downward current, in the same way that heating by fire renders it lighter and produces upward currents. We have not had this ventilator long enough to test its cooling power in the heat of summer; but being placed in a room warmed by a stove, to a temperature between 60° and 70° Fah., the provision chamber remains only a few degrees above freezing, or from 41 to 45° degrees by the thermometer. Placed in its box, the ice lasts four or five days, being protected on both sides by the cold chambers. It thus becomes a convenient place for keeing ice ready at hand. The "ice-water reservoir," supplied with a faucet, furnishes cold water at any moment.

The walls are zinc filled with pulverized charcoal, and form so good a non-conductor, that when placed out doors at a time when the thermometer was more than 20 degrees below freezing a gill of cold water was five hours in forming a thin crust of ice, although frozen in fifteen minutes outside. Consequently there could be no danger of any dishes of food freezing, if placed in it over night in the severest weather. In summer, for keeping fresh meat and fish, milk, butter, vegetables, fruits, &c., it is obviously of great value.

We intend to perform careful experiments with it next summer, and shall expect to give our readers a timely report.

* * *

$2 per acre for twice cultivating an acre of this 33 acre field.

From a 20 acre field in 1859, he harvested 28 bushels of wheat per acre, and pastured it in the fall. On the 6th of last May he put the 107 ewes on to this 20 acre field, and kept them there till time to wash them—also, at the time he put in the sheep, he put in 18 cows, the clover growing faster than all these animals could consume it. When the sheep left the pasture to the cattle, the increse of clover was rapid—so that some six acres were mown by some of his men who had cows to winter. In August, and the first days of September, he plowed under all he could of the clover, harrowed, and sowed wheat, and is expecting to harvest a first rate crop if the season is favorable, never having 20 acres of wheat looking better than this at the time the snow came.

However, it is proper to say here, that last season was a very rainy and growing one, which in some measure explains why the clover pasture produced so largely. A very dry season, of course, would have shown a somewhat different result, and the season there seems to have been equally favorable for the corn crop. The 33 acres of corn was the best field, considering its size, uniformity of growth, &c., that was ever raised on the farm, and the cost was the least—and this corn was grown on land that has been cropped without intermission sixty years, and only manured by the use of clover and gypsum. And yet, after all his experience in this matter, Mr. Geddes does not come forward *and arrogantly assert* that this system of manuring will be every where else attended with the same good results—but modestly gives it as his opinion, "that wherever clover can be made to grow well, *this will be true*," and I have no doubt of the correctness of his opinion.

I do not pretend to any practical acquaintance with the use of clover and gypsum as a manure; but I have penned the foregoing facts, with the hope of, at least, "inciting to investigation" in those sections of the country where clover has not been employed as a manure, as is the case in this section of New-Hampshire.

Warner, N. H., Jan. 10, 1861. LEVI BARTLETT.

* * *

AYRSHIRES AS MILKERS.—When I wrote you last year, I stated that I had some Ayrshire heifers, imported from a choice herd in Scotland, of which I would inform you further. Though only two years old, they have given on an average, through the grass season, 14 to 17 quarts of milk per day, and now within six weeks of calving, are giving seven quarts daily. I must take away every thing but hay to dry them up. I hope at some time to give you a more full account of them. E. S. P. *Essex Co., Mass.*

[For the Country Gentleman and Cultivator.]

BAKED SQUASH.

The best mode of cooking winter squash is that of baking, and a Western friend furnishes us the following hint on the best mode of doing this: Bake rather gradually, not only until cooked through, but until dry. Potatoes are best baked quick, until done and no longer; the squash, on the contrary, may remain in a moderately heated oven fifteen or twenty minutes after cooked through. We cut in thin slices, bake, and serve up every day at breakfast and dinner, and it is really a luxury. In our section, however, it is a brief one, for the rainy fall has spotted almost every Hubbard and Marrow with decay—sometimes in the form of dry rot. H.

Niagara Co., N. Y.

* * *

Cure for the Black Scours in Horn Cattle.

Burn Indian meal until it is as brown as well roasted coffee. Give the creature from one to two quarts at a feed twice a day. I have tried it several times and never had it fail. AN OLD SUBSCRIBER.

MANURE FOR CORN IN THE HILL.

We were asked recently by a farmer friend for advice in regard to manuring corn in the hill, and the most available sources for supplying the same with as little expense as need be, beyond the labor of preparing and applying. He said that he wished to plant upon a clover sod, which had borne two good crops of hay, turning it over without any application of manure, just before planting time, harrowing and cultivating in the usual manner. He thought that by manuring in the hill, he could secure a good crop; and knowing his soil, as we do, we think such would be the result. In most of our own experiments in hill manuring, we have given a good dressing of manure on the sod, and applied the hill manure to give the corn an early start—a vigorous growth—until it attained strength and length of root to feed on the buried food of decaying sod and manure.

Some good reasons for this practice have formerly been given in this paper; instead of recalling them, however, we will cite a recent paragraph from the New-England Farmer: "In our short seasons, the corn crop often fails to come to maturity for the want of an early and vigorous start in the spring. The tender plant needs something immediately about its roots, to push it along and bring out its broad leaves for atmospheric influences to act upon and perfect it before September frosts occur. A liberal broadcast manuring is not sufficient for this, and so we want something that is cheap and portable, that every farmer may have it to drop into the hill before covering the corn, to impart warmth to the seed, and quicken it into vigorous action." One valuable source of manure for this purpose is found in the droppings from the hen-roost. If one has a supply of dry muck to scatter over the droppings two or three times a week, adding also a sprinkling of plaster, it will need no further preparation at planting time than the mixing it will receive in loading and unloading, and its transfer to the hill. If this is not done, a very good compound can be made at planting time by using the same materials, mixing the muck, plaster and droppings, after removing the latter from beneath the roost. A small handful to each hill, covered slightly with soil, and the corn planted upon it, will produce the desired effect.

Another fertilizing compound may be prepared from night-soil, with charcoal dust and dry muck, added from time to time in sufficient quantity to absorb the liquids, and render the mixture inodorous. A thorough working over will be necessary, so as to incorporate the different materials well together; they may then be placed in heaps and covered with muck or dry soil until needed for use.

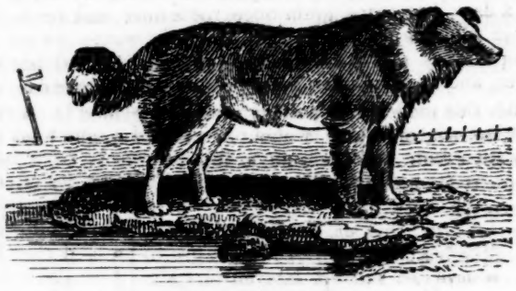
Hog manure, composted with muck and fresh horse dung, and placed in heaps for several weeks, would make a strong fertilizer for this purpose. It would require due attention to mixing the material in proper quantities—at least one-half muck and one-sixth horse manure—and in proper condition as to moisture, and depth and compactness of the pile, which experiment alone would fully determine, to produce the best results, without loss by overheating or from imperfect decomposition of the mass. By turning and remixing once or twice, a fine compost could be made, valuable for this or any other purpose for which such material is required.

Any barn manure sufficiently rotted, can be used for applying in the hill, varying the amount and manner of of dressing according to its strength and condition. A shovelful of common farm manure would be no more than equal to a good handful of either of the two first named, or half the quantity of that third in order. In using barn manure compost, we have only tried it by applying it to the surface after plowing, and then covering or rather mixing it with the surface soil by the use of the wheel-cultivator and harrow. The effect of a light dressing—say eight or ten loads per acre—was very satisfactory, and leaves the ground in better order for the following crop.

The following simple and efficient hill fertilizer is described by the writer above quoted, and is, as there remarked, "within the reach of every farmer," and should be neglected by no one: "Take an old cask, such as a molasses hogshead, mix a bushel of plaster with old muck enough to fill it, and saturate the whole with urine from the barn cellar or from any other source. Continue to pour on the urine freely from day to day, until the escape of ammonia is detected, and then discontinue it. The contents of the hogshead may then be taken out and the operation repeated to any extent desired. In this operation the sulphuric acid in the plaster will combine with and fix the ammonia escaping from the urine, and the mass will be a portable, active and highly fertilizing agent—one that *every* farmer may have."

Extraordinary Exhibition of Dogs.

At Birmingham, England, in the month of December last, there took place an extensive exhibition of dogs, of which 300 were entered as competitors for sundry prizes of large amount. There seem to have been collected on that occasion, specimens of almost all the varieties—nearly countless—of this species of animal. There were, for example, specimens of the plain but intelligent sheep dog; of the grotesque, negro-featured pug; of the Skye terrier, lithe as a ferret, and shaggy beyond recognition of head or



THE SHEPHERD DOG.

tail; of the superb mastiff; of the savage, sullen, repulsive bull dog; of Alpine mastiffs and St. Bernard dogs, so useful in recovering travellers lost in the snow; of black and large Newfoundlands, and of terriers so small as to be indeed quite a marvel, one Scotch terrier being said to weigh less than three pounds, though over two years old. There were specimens of a great variety of hounds—hounds strong and swift and rough coated, that chase the antlered deer; hounds keen, swift, and sturdy, that seek the wiley fox; greyhounds slim and slender, whose rapidity in running, and venturesomeness in leaping, are not more wonderful than the ease and elegance with which such feats are accomplished; half-amphibious otter hounds, and terrible blood hounds with pendent lips; German boar hounds, and several other varieties known as pointers, setters, harriers, spaniels, &c.

Raising Pigs "by Hand."—A writer in the Homestead says "We once lost a sow the second day, and raised her entire litter successfully. We put a little warm milk in the trough, and then put in the pigs. They sucked away at each others feet, and soon drank up the whole." When pigs are taken very young from the sow, he says, "they should be fed often but sparingly, on warm milk and water sweetened. They will drink readily from a spoon."

[For the Country Gentleman and Cultivator.]

Feeding and Feeding-Boxes for Sheep.

Eds. Co. Gent.—As there is and has been much said about feeding and managing fat sheep, I propose also to say a few words for the purpose of bringing out some more reliable information from your numerous correspondents. Instead of correspondents saying only that they or some one else were feeding a certain number of sheep so many times a day, with or without water, and that they were doing well, or not very well, as the case may be,—will they not also say *how much* hay, grain and roots they give per day to a certain number; whether they give water or not, and how much they gain per head live weight in a certain time? This is really about all the information that is worth knowing; for what we wish to ascertain, is which mode will give the greatest gain, with the least feed. It is there where the profit lies. There appears to be a diversity of opinion as regards the racks or feeding-boxes to be used; also as to how often sheep should be fed per day, and at what hours; also, whether they do better with or without water.

As regards feeding-boxes, I have not yet seen any which I prefer to mine for these four reasons: 1, Mine is the cheapest *good box* which I have yet seen—(a sketch of them was given in the Co. Gent., vol. 15, no. 14); 2, they answer for hay, grain, roots and straw; 3, they are easily cleaned, having only to be turned over and back again, which is easily done, as they are light; and, 4, the ease and evenness with which the grain and roots are distributed through the box, as a man with his basket can put in the feed as fast as he can walk, and the width of the box, 22 inches, makes the spilling of the grain, &c., almost impossible, even should the sheep rush upon the feeder, as they frequently will do if as carefully handled as they should be.

My mode of feeding has always been to feed my sheep twice a day; hay twice, grain once, roots once, and straw, together with all the water, salt, &c., they want—always feeding the hay and grain early in the morning and late at night, and the straw and roots in the middle of the day.

Under this mode of treatment my sheep gained in live weight last winter (which is about as they generally have done,) from Jan. 3d to Feb. 3d, as follows:

13	Sheep in stable, gained	14¾	lbs. a piece.
18	do. do. do.	12½	do.
83	do. in open yard with shed, gained	8	do.
60	do. do. do. do.	6	do.
40	do. in upper part shed, 21 by 26, gained	8¼	do.
70	do. in close-shed on the ground, do.	6½	do.
77	do. in small open yard with shed, do.	7½	do.
73	do. do. do. do.	6¾	do.
70	do. in temporary shed, with privilege of field, gained	5¼	do.

Although I have done a little at sheep feeding, I confess, when such men as G. G. Bradldy and my old friend James Brodie go at the business, I would gladly have their experience—knowing that they are competent and to be relied upon.

S. W. Jewett recommends but two feeds per day for sheep, one between 8 and 9 in the morning, and the other about 3 in the afternoon, and says they will consume one-fourth less fodder than if fed three or four times per day. This certainly would be an item, as my 504 sheep of last winter, consumed 22 bushels of grain and meal per day, besides hay, straw and roots, while under Mr. Jewett's mode they would have consumed but 16½ bush. per day—a saving on grain alone of 5½ bush. per day, or 165 bush. per month. But the question is, can Mr. Jewett make his sheep gain more pounds live weight in a certain time by feeding the same quantity of grain between 8 and 9 in the morning and 3 in the afternoon, than if fed at 6 in the morning and 6 at night?

Now as I have freely given my mode of treatment and the results, will not others do the same—measure the feed; weigh the sheep at a certain time, and then again at another date, and give their results? Above all, I would like to hear how Mr. Bradley succeeds without water.

Bethlehem, Albany Co. JURIAN WINNE.

[For the Country Gentleman and Cultivator.]

Sheep Husbandry in Duchess Count".

H. C. of Ohio, will find answers to his inquiries, concerning long-wooled or fine-wooled sheep, in The Cultivator for Feb., vary according to the experience of those who keep sheep. The question of the comparative profit of the two classes of sheep, is a question of fact, and the truth is to be learned from testimony.

I can give the testimony of a good many farmers in the eastern part of Duchess county, who keep fine-wooled sheep. I would premise, by saying that there are some here who think the long-wooled or the South-Downs, to be more profitable, if there be only a small flock, but those who keep fine-wooled answer, in the first place, (to follow the order of the "Ohio Ag. Rep.,") that the fine-wooled live on coarse feed just as well as the others, and that they will endure hard fare rather better; though, of course, they know that poor fare is not profitable for anything.

Second—The fine-wooled sheep do not require more care and better shelter than the others. We are unanimous in saying that the fine-wooled require even less protection from the storms of winter.

Third—The number of lambs of the coarse-wooled, we concede is greater; the others have only a small proportion of twins. We prefer that they should not have any.

Fourth—I do not see it possible, that one should be more exposed to dogs than the other.

Fifth—We all think it profitable to keep fine-wooled sheep on high priced land. I can point to a good many flocks of fine-wooled ewes that shear from four to five pounds of wool, which sells for forty to fifty-five cents, and the lambs, which are raised from them and a coarse-wooled buck, sell in the market for about three dollars. This shows a flock of ewes to be quite profitable, on high priced land; perhaps quite equal to the coarse-wooled, if we consider how many more of the fine-wooled can be kept on a hundred acres than of the others. Good land is the best place for any sheep, when the raising of market lambs or mutton is to be a chief part of the business.

Those who keep fine-wooled sheep in this part of the country, do not generally confine their stock to a single flock of ewes. They raise from their oldest ewes, lambs for the market, using a coarse-wooled buck. They also raise an equal or greater number of fine-wooled lambs, of the same grade as the flock, which are kept till they are a year old and sheared, when the best ewes are selected from them, for the proper maintenance of the flock, and the wethers are sent to market immediately after shearing, if they have been kept through the winter in good condition, as they should be. In the fall, after the lambs are weaned, the oldest ewes, and those having any defect of fleece or form, are fattened for the market or sold for stock. The smaller sheep are disposed of also in the same way.

Thus we have a number of flocks, not all of them needing high feed, adapted to a variety of keep and suitable to stocking a large farm.

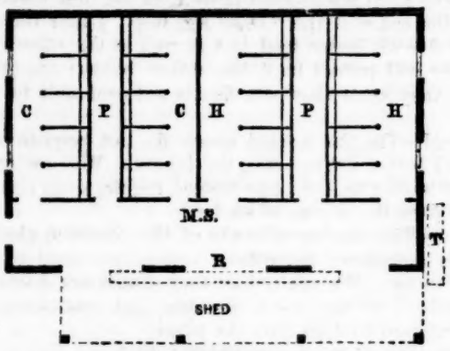
I should think that in Ohio, so far from the best mutton market, the difference in favor of the fine-wooled would be greater than it is here.. N. Reed.

Amenia, Duchess Co., N. Y.

Ag. Papers.—A venerable friend in Vermont, in renewing his subscription to the Country Gentleman, says—"I wish every farmer could be made to become a subscriber and a reader to it; and I know of no use to which the funds of the State Society could be better applied, than to give premiums to such persons as would procure the greatest number of subscribers to the Monthly Agricultural papers of the State. I say monthly, as those come so low that no farmer can say he is unable to pay for one copy; and the reading of the monthly may, like drinking small draughts occasionally of intoxicating drinks, incite the appetite for more frequent indulgence and in greater quantities. I think drinking at this fountain will never produce the delirium tremens." J.

PLAN OF A THREE STORY BARN.

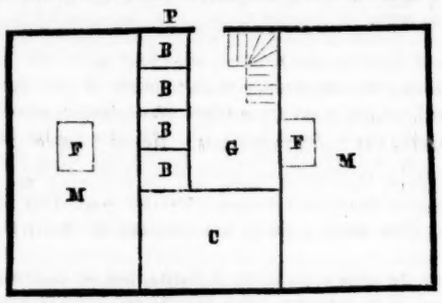
L. TUCKER & SON—I have read several articles and seen several plans in your valuable journal for building barns, but none I like so well as my own, which I built last year at a cost of about $1,000, besides our own labor. It is what is sometimes called a three story or a "double decker" barn, built on the south side of an abrupt or steep little hill, or "bench," as they are called in this country, being the first rise from the Whitewater creek bottom. It is about 36 by 60 feet, with a 14 feet "over-shoot;" the hillside was dug out for the cellar or stable, and being chiefly gravel was very useful for making the roads and



BASEMENT.

C. C.—Cow stables. H. H.—Horse stables. P. P.—Feeding passages. M. S.—Manure shed or overshoot. R.—Straw rack for cattle, with shed 14 feet wide over it on posts. T.—Water trough.

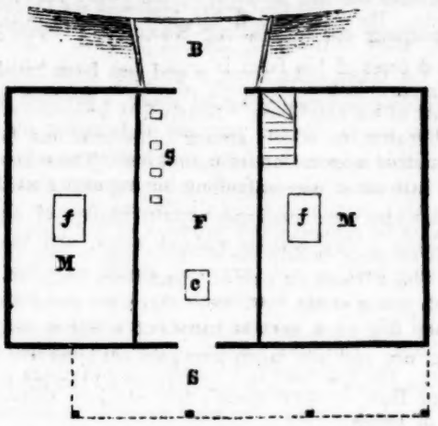
leveling off the barnyard, which I coated over to the depth of a foot with hard solid gravel. The lower story is divided into two horse stables and two cow stables, with an entry between each, and will accommodate 10 horses and 12 cows in stalls. The walls are about 17 feet high, extending up to the barn floor. On the north side the bank is leveled off 8 feet above the stable floor, about 10 feet from the wall, forming a roadway or passage like an area, on the north side of which is a wall and bank to the top of the hill 5 to 7 feet higher, from which and over this passage extends the bridge-way to the barn floor, the large doors of which are hung on rollers. Under the barn floor,



MIDDLE STORY.

G.—Granary. B. B.—Bins. C.—Chaff room. M. M.—Mows or bays. F. F.—Funnels, for pitching down hay. P.—Passage or wagon way, on north side of and level with granary.

which is near the middle, are the granaries and chaff-room—the mows or bays on the east and west sides of the barn floor, extending 8 feet below it, to the level of the granary floor and over the stables. In the barn floor are several holes with lids, through which we run the grain into the bins as it is cleaned up. At the south or back end of the granary is the chaff-room, into which the chaff falls from the barn floor through a hole. There is a door out on the north side of the granary, under the bridgeway, where we load and unload the grain, feed, &c. There are two flights of stairs, one from the barn floor to the granary, and one from the granary to the entry below. In each of the mows is a funnel extending from over the entry up to the top of the barn, for ventilation and to throw hay, &c., down. The frame is about 16 feet high, weather boarded and painted. We fill the lower part of the mows with hay, which is much easier pitched *down* than up, and put our wheat on top,



UPPER STORY.

B.—Bridge way. F.—Barn floor. M. M.—Mows or bays—f. f.—Funnels for throwing down hay. C.—Trap-door to chaff room—g.—Trap-doors to granary. S.—Straw shed.

which we thresh at odd times and in rough weather through the winter, economizing our straw, using a two-horse endless chain power, and also for grinding corn on the cob, and for sawing wood. A trough of running water is in the barnyard, which is warm and sheltered on the west by shed stables. The barn having sky-light windows, we can see well to work in rough weather when closely shut up. S. S. R.

New Paris, Preble Co., Ohio.

This appears to be a good and very convenient barn, and admirably adapted to saving the labor of pitching grain, straw and hay, carrying grain, and to preserving chaff and straw. The horse stables being in the basement, special pains should be taken to have it dry, airy, well ventilated and protected well from the usual dampness of such stables, which proves injurious to horses.—EDS.

NEW PRAIRIE FARMING.

A LETTER FROM G. OF NORTHERN ILLINOIS, TO B. OF WESTERN NEW-YORK.

A——, Lee Co., Ill., Jan. 16, 1861.

MY DEAR B.—To show you what may be done in two years on the unbroken prairie, I send you some account of the farm of one of my neighbors, whom I have known for some years. Mr. C. is a Scotchman, and an enterprising merchant in the village, but two years ago, tiring of constant confinement in the store and entire application to one branch of business, he purchased two hundred and twenty acres of uncultivated prairie, erected a house and good solid board fences, and began the improvement and cultivation of his farm. He yet spends about a half of each day in the store, driving daily two miles to the village, and passes his evenings at home in agricultural and other reading. His pleasures cluster around his fireside and genial business pursuits, and hence tend to constant enhancement and progress.

The buildings thus far erected, are a house one and a-half stories high, 16 by 24, all occupied daily, and intended for cozy comfort rather than display; a stock stable, 100 by 12 feet, full of good cattle; a swill-house, 12 by 16, and eight feet high, and two double ranges of swine-pens. His stable is built of boards, with roof facing the south, and is just wide enough for taking care of the long range of bovines without inconvenience. The animals are fastened with the upright stanchions common in your State. Although the night of our recent visit was bitterly cold, we found the air in these stables sufficiently warm, and could but contrast the comfort of these cattle, housed and well cared for, with that of most of our prairie herds, without shelter, or only the protection of a straw-pile.

Mr. C. believes in saving and applying manure. He grows sugar beets and mangolds for his cattle and swine, and although the soil producing them has but just awakened from a sleep of centuries and abounds in fertility, he

adds thereto the rich manures of his swine-pens and cattle-yards. He has seeded his low grounds with tame grasses, after burning off the old product. About one hundred acres of his farm is under the plow—fifty acres were in corn last year, much of which is yet unhusked, like that of his neighbors. Nearly fifty acres were broken up last season, on which, among other products, he grew five hundred wagon loads of pumpkins. These have helped the crib materially in feeding his numerous stock.

It is his intention to keep a sufficient number of cattle and swine to consume the produce of his farm; he has for this purpose, beside the working teams, thirteen cows, (three Short-Horns,) a pair of Short-Horn bulls, and a fine herd of young cattle. Of hogs there are about one hundred and fifty—ten sows and two boars, fine specimens of stock hogs. The sows, excepting one, are natives or grade Suffolks; the boars are full bloods—one of them purchased from Hon. J. Wentworth's fine stock of this valuable breed of swine.

Mr. C. is planting trees, and in ten years will have a farm more beautifully adorned, enriched and sheltered, than many farms in your own State, which were once covered with the finest specimens of shade and timber trees.

The present condition of the farm can only be considered as the beginning, not the consummation of improvement. In this locality it is now considered an improved farm; but is not *such* a farm as will satisfy the ideal of its owner. When all its low grounds produce a rich burden of the tame grasses, when its division lines are marked by green hedges, and every part is producing profitable crops, then will he begin to consider it an improved farm, but still capable of farther and increasingly profitable improvement.

The soil of this farm is of the indescribable Illinois prairie sort—soil, when it is dry; glue, molasses, tar, mixed in an execrable mud, when thoroughly wet. In some places it is sandy, and may be termed a black sandy loam.

The farm buildings above mentioned, are conveniently located; the swill-house, furnished with cauldron and steam-box for cooking feed, bins for swill and meal, all at small cost compared with its usefulness. I will send you a further description of it hereafter, as I consider it a model arrangement.

His method of penning, and the feeding of his hogs is novel, and worthy of mention. The swine are enclosed three in a pen, in a long range of pens, and the swill is taken to them in the better part of a barrel, arranged between the handles of a wheelbarrow, or something very similar. The wheel of the barrow is three inches broad, so as to be moved more easily over soft ground, and the swill is readily transferred to the feeding-trough with a large dipper or a pail. During the winter he will slaughter about one hundred hogs; all that will nett 100 lbs. each—of course reserving his stock hogs. I might mention other interesting points observed, but will reserve them for another time. You can get some idea from this hasty sketch of an Illinois farm new from the prairie, but in the hands of an energetic and stirring man. G.

[For the Country Gentleman and Cultivator.]

CRACKED HOOF IN HORSES.

I have a valuable mare that corked herself at the top of the foot. As the wound grew out and reached about an inch from the hair, it cracked open a space of about two inches, causing much lameness and fever. I had a heavy shoe made and well put on. After being set the shoe was spread at the heel, and often spread afterwards with blacksmith's tongs. With a file (a small saw file,) made a crease of about two inches in length across at the top of the hoof above the crack. I repeated the filing about once a week. This crease, with the frequent spreading of the shoe at the heel, kept the crack from opening, and in a few weeks the foot was well. I applied tar and lard to make the hoof grow fast. I think it not necessary to band the hoof with iron nor to make a deep incision with a knife or chisel at the top of the hoof as some do.

Rock Island Co., Ill. C. G. TAYLOR.

[For the Cultivator and Country Gentleman.]

How to Grow Good Potatoes.

Eds. Co. Gent.—As I see an article in your journal respecting manuring effect upon the Potato Crop by Observer, I wish to give my experience with three successive crops of potatoes by yard manuring.

The soil was a light loam, well plowed and harrowed, to have the ground as loose as can be for the drills. I use a double mould-board plow, and put the manure in the drill, and plant the potato on top of manure. I mention the way I plant, as it is customary for the generality of the farmers in this part, to plant the potato and then put the manure over it. Heavy barn-yard manure I have used, and at the rate of 50 tip-cart loads to the acre.

I seldom cut the potatoes, and generally plant the most even size, say as large as a guinea hen's egg, and not to exceed a moderate size hen's egg—anything larger I cut.

I then mix plaster of paris, as it is called here, or gypsum, and good wood ashes not leached, say half of each, well mixed, which I roll the potatoes well in before planting, so that they have a good coating. To make the ashes and gypsum adhere, I wet the potatoes with salt water, say a pint of salt to two gallons of water.

This season, off 3½ acres, I had 550 *minots* of good sound tubers—no rot—and even size. Nothing can excel them for flavor and dryness.

I must also mention that potatoes ought not to be planted a second season on the same field. I change the location every year to the piece of stubble land plowed in the fall and again cross-plowed in the spring.

The potatoes I plant, are a cross between the Irish Cup and Peach Blow. I hybridized them by planting alternately a Cup and a Peach Blow the first years, and now they are all of a uniform kind, and very superior for table—in fact, nothing to excel them.

In a further number I shall give my mode of after cultivation. Charles Hughes. *Aspen Grove, C. E.*

[For the Country Gentleman and Cultivator.]

How to Exterminate the Black Weevil.

Messrs. L. Tucker & Son—I see in Dec. Cultivator, p. 381, an inquiry how to exterminate the black weevil. I will give my experience, as it is cheap and simple, and won't put H. K. to much trouble if it don't prove effectual

I will first give my experiment. In my neighborhood it is not common for the people to have granaries at home. The mills are numerous, and the people store the wheat at the mill, which makes the body of wheat large—of course the insects are more numerous. I used to stow my wheat at the mill, but having so much of it destroyed by the black weevil, I concluded I would build me a granary at home, and find out some plan to exterminate the weevil. I made some inquiry, and one of our best millers told me that *salt* would drive them away, although it was too much trouble for him to try it for the benefit of his customers. I built me a granary, I think in August, 1857, and made some strong salt brine, with which I wet the sides and bottom of the granary, and sprinkled some among the wheat. And never, to my recollection, have I seen a black weevil in my granary.

I think it an excellent plan for farmers to salt their wheat n the straw as they haul it to stack or barn, so the salt would strike through the wheat and straw, and cattle would eat the straw more readily. I see Mr. J. Lowe, in the Working Farmer, says that the "simplest and most effective remedy is the salting of wheat at the time of housing it—say one pound of salt to every two bushels of wheat. If this precaution be used, no fear need be entertained in relation to the insects referred to, for the effectiveness of the means spoken of has been proved by practical experiment, so as to put beyond all doubt certainty of success." I don't think so much as one pound of salt to two bushels of wheat is needed. I think less will do.

Guilford Co., N. C. JOHN A. M. COBLE.

[For the Country Gentleman and Cultivator.]

SHALL WE GO WEST FOR FARMS?

No. Stay at home, clean your land well, drain thoroughly, plow deep, subsoil and manure highly, and my word for it, our eastern farms will be equally profitable with the farms of the west.

Messrs. Editors—With my subscription for the Country Gentleman, I send you as an illustration of the above doctrine, an account of the treatment and product of fourteen and a half acres of cold, wet, springy land on my farm in the town of Rye, Westchester Co., New-York.

The land cost me one hundred and fifty dollars per acre, and I expended, in clearing it of stones, cedars and briars, and in fencing, draining, cultivating and manuring, nearly two hundred and fifty dollars more. Of course it now stands me in about four hundred dollars per acre.

The first season the land was fenced anew, and drained by the use of about sixteen thousand three inch drain tile. One field of eight and a half acres, was planted with corn on a sod turned under twelve inches deep, with a "double Michigan sod and subsoil plow." The corn was manured with ashes in the hill. The crop fair and satisfactory for a first attempt, but was not measured accurately.

Lot no. 2, containing six acres, was plowed in the autumn of 1858, and a heavy dressing of compost manure turned under twelve inches deep, then harrowed and sown with rye. The crop of straw was enormous, being very thick, and on an average seven feet high, some of the more ambitious stalks rearing their heads over eight feet in height. But when the grain was about half filled, the straw was struck with rust and the kernels, of course, were shrunken and imperfect; still the crop was twenty-five bushels per acre.

To make amends for this comparative failure, the stubble was immediately plowed under twelve inches deep, and the field sown with buckwheat. This grew finely, and gave me a crop of thirty-nine bushels per acre, making a total crop of rye and buckwheat, of sixty-four bushels per acre for the season.

The treatment of these two lots has been somewhat different during the past season, which, with its results, I will now proceed to describe.

Lot no. 1, of eight and a half acres, was manured heavily with a very rich compost, and with the stalks of last year's crop turned under elveven inches deep, followed by a subsoil plow to the depth of seven inches more, thus disintegrating the subsoil, which is a clayey loam, underlayed with a clay hardpan to the depth of eighteen inches. When fitted it was planted with corn in hills, three feet apart each way and four kernels in each hill.

Lot no. 2, of six acres, was manured in a similar manner with lot no. 1, and plowed fourteen inches deep. I had seen it stated that corn would not succeed well after buckwheat, and I determined to make an experiment and test the truth of this opinion. When fitted properly, instead of planting it in hills, I drilled in the seeds, dropping a kernel every nine to twelve inches, in rows three feet apart. The seed of this field, let me add, was treated to a thin coating of tar and rolled in slacked lime. This process seemed to retard its germination, as it did not appear above ground until several days after that not so treated. But it had the effect of preserving it from the depredations of the crows, which were numerous, but expressed a thorough dislike of it. The planting was finished on the 25th of May.

The cultivation of the two lots was much the same, and consisted in running the cultivator between the rows four times, and hoeing once. Pumpkin seeds were planted thickly through both lots, and turnip seed was sown between the rows, with the double object of smothering the weeds that might otherwise grow, and of providing green food for my stock in winter.

And now for the result. From the two lots containing fourteen and a half acres, I harvested twenty-two hundred and seventy-six and a half baskets of ears of corn, each basket yielding eighteen quarts of shelled corn; making twelve hundred and eighty bushels and seventeen quarts. This gives an average of eighty-eight bushels and ten quarts per acre. Besides this I harvested fifty cords of pumpkins and four hundred and three bushels of turnips, many of them of enormous size, some of them measuring over three feet in circumference. A large number of turnips were left in the field, having grown so rapidly as to split open, and thus were spoiled.

I did not find that the previous crop of buckwheat had any effect upon the corn. So far from this, the buckwheat lot gave decidedly the best corn, the crop upon it being 92½ bushels shelled corn per acre, while the other lot averaged only 85 bushels and 11 quarts. I ought to say that the lot upon which I raised the rye and buckwheat the previous year, had received the most manure, and I think was therefore in the best condition. This circumstance qualifies my opinion upon the advantage or disadvantage of drilling in the corn, instead of planting in hills.

The kind of corn I raised was the *Improved King Philip*, or Brown variety.

The following is the estimated expense of the crop per acre:

Interest on land at $400,	$28.00
Plowing,	6.00
Harrowing and marking out,	1.75
Cutting, four times,	4.00
Hoeing once,	1.50
Cutting up and carting to barn,	2.50
Husking 160 baskets at 3 cents,	4.80
Twenty loads of manure at $1,	20.00
Total,	$68.55
Per Contra.	
88 bushels 10 quarts corn at 75 cts.	$66.21
3 tons stalks at $5,	15.00
3½ cords pumpkins at $2,	7.00
28 bushels turnips at 20 cents,	5.60
Total,	$93.81
Deduct expenses,	$68.55
Net profit per acre,	$25.26

Allow me to add, that in laying tile care should be taken to place them below the possible reach of frosts, for if frozen they will crumble and fall to pieces. Three feet I think a good depth. Another thing—I have found by experience that the main drains should be left open at both ends for the admission of air, by which means the soil will be much earlier warmed and the roots of plants more thoroughly aerated.

How to Increase your Manure.

And now let me say a few words upon the subject of manures. Stable manure being expensive, and not easily obtained in this neighborhood at any price, I have endeavored to find other fertilizers to supply the deficiency; and as the question has been often asked, what was I going to do with "that stuff?" I am led to believe the subject of fertilizers, their varieties and uses, is not as well understood as it should be by those who are deeply interested in it. At all events, people neglect to obtain at the cheapest rates some of the most valuable renovators of the soil. In some instances they can be had for carting them away. The first question, in my opinion, should be—will this or that article, within our reach, increase the productive powers of the soil sufficiently to pay the expense of cartage and preparation? If it will, let it be collected at once and added to the compost heap.

Perhaps an imperfect list of the articles of "stuff," which have provoked inquiries and sometimes, no doubt, a smile, may here be given without trespassing upon the reader's patience, and possibly explain the respectable crop above described. My compost heap is an *omnium gatherum*. It embraces anything and everything, animal and vegetable, that I can lay my hands upon—feathers, woolen rags, all sorts of bristles and hair, clippings of wool and of skins of all kinds, tobacco stems, sea weed, salt hay, straw, potato tops, weeds, hog and stable manure, night soil, sweepings of the hen-house, sugar-house "scum," blood, the parings of horses' hoofs, plaster of paris from stereotype foundries, charred bones dissolved in oil of vitriol, earth saturated with whale oil, currier's shavings, sea sand, salt, dead animals, &c., &c., with loam enough to absorb all effluvia and prevent any offensive smell.

This is compost heap no. 1, into which, I would observe, neither lime nor ashes, especially in their caustic state, should ever enter, because much of the value of this heap depends upon the ammonia which it contains, and which lime and ashes would disengage and thus suffer to escape.

To avoid this consequence, I have another compost heap, no. 2, in which may be found old mortar from the walls of buildings, plaster of Paris, spent soda ash, bones, the residuum of soap factories, refuse salt, shell and stone lime, caustic or slacked, ashes leached or unleached, pot ash scrapings, saw-dust, charcoal and coal ashes, soil, and many other articles often easily obtained. Muck should have entered largely into both of these composts, but unfortunately my farm does not afford any.

A good compost may be made of shell lime, burned shells—say one hundred bushels slacked with water in which from twenty to thirty bushels of salt have been dissolved, and then add two hundred bushels of ashes, leached or unleached. Unleached ashes are of course much most valuable, as they contain large quantities of potash, which is essential to most crops. This compost, applied in autumn at the rate of thirty bushels per acre, on winter wheat or rye, or upon meadows, produces a fine effect. Let this be followed in the spring, upon wheat or rye, with a dressing of ground bones or bone ash, and you will have a field of grain of which no farmer need be ashamed.

I will close this long article as I began it, by saying use plenty of manure, drain thoroughly, plow deep, subsoil, plant in season, and cultivate well, and you will raise more on one acre than is ordinarily produced on three; at least such is the opinion of one, who although a novice in farming, has from actual experiment satisfied himself of the fact. J. F. T.

P. S. If you wish to keep up with the agricultural progress of the age, take two or three of the best Agricultural Papers of the day, study them well, and it will be the best investment you can make of the small amount of money which they cost.

[For the Country Gentleman and Cultivator.]

WEIGHING AND MEASURING HAY.

Messrs. Editors—I notice by an article in a late no. of the Country Gent. on the weight and measurement of hay, you call for the results of experiments where they have been actually made. I have twice tried the experiment of measuring and weighing hay, and I am satisfied that no certain rule can be given unless the quantity, quality, and depth of mow are taken into account. One mow of hay, which I tried, was a mixture of clover and timothy, nearly half and half—rather coarse hay. The bay was 18 by 30 feet, and the hay was 10 feet in depth. The balance of the mow above had been unoccupied. This was offered to me for 10 tons, calling 8 feet square or 512 feet a ton. I divided the mow in the centre, and weighed half of it, and it weighed 3 tons and 1200 lbs., being almost 750 feet for a ton. The next was a mow of fine hay, put in the bay green enough to mow-burn some. The bay was filled to the roof, and afterwards covered with oats in the bundle. The posts were 14 feet, and the bay was 16 by 28 square. After taking out about half the depth of this mow, finding it very solid, we agreed to cut with the hay knife in a square form and weigh, and both parties should abide by the rule established thereby. We weighed out 2000 lbs. and measured the square from which it was taken and it was 8 by 8 feet, or 512 feet for a ton, and I accepted the mow by that rule, and I am satisfied that none but fine hay, and that closely pressed, will make a ton in 8 feet square. Wm. J. Patch.

Tioga County, N. Y.

The Vermont State Agricultural Fair, will be held at Rutland on the 10th, 11th, 12th and 13th days of September next.

FARM WORK FOR WINTER.

There is farm work for winter as well as summer—labor which if then accomplished leaves greater time and room for the indispensable operations of seed time and harvest. But many farmers fail to find all this work—fail, perhaps, because they look in the wrong place for it, or have very little mind to engage in any thing beyond the necessary chores of foddering and fire-wood—giving these no very systematic or economical attention.

Among other reasons why some do little farm work in winter, we may mention the opinion they hold, that only large operations are profitable—only showy days' work are counted—that little things are of very little account—or that they have "no faculty for choring." These opinions are evidenced in the fact that their cattle are fed now at seven and then at nine in the morning, with no attention to regularity—they get drink, it may be, in the course of the day, and occasionally have dinner and supper together after sundown. It is thought hardly worth while to clean out stables more than two or three times a week, or give bedding only as happens to suit convenience; and as for currying a cow or ox, it is thought a matter of indifference whether the working-horses receive that attention, except when to be used on the road, away from home. The sheep and calves must "take their chance," or if they get good feed and shelter, carelessness and irregularity deprive them of half their value. As to getting wood, it must be very favorable weather, an empty yard, and a gang of hands, which sets teams and axes in motion—besides there must be no call for "going to town," or that will have the preference. But not to overstate the matter, we must allow that very few are remiss on all these points—most slack farmers neglect some of them, or something equally important not included in the catalogue.

The thorough, systematic farmer thinks no duty or chore beneath his attention. He finds no lack of employment—and paying employment too—for every day in winter. Attention to the comfort and regular feeding of his cattle is repaid by their thrift and growth—they increase in value in winter as rapidly as in summer. The dairy does not cease to be productive; the young stock increase in weight and size, instead of getting "spring poor;" his sheep are gaining in flesh and wool, and promise a healthy increase the coming season; his horses and oxen get daily exercise, as well as daily feed and care, and will come out strong and energetic for the spring work, besides earning a handsome sum by winter teaming. His fattening animals are fed upon a rational system—one calculated to make the most of the feed given and the product desired. But the care of his stock is not the only work done at the barn during the winter. Much care is given to increase the quantity and quality of the manure, and to preserve it from waste or loss until the season of application to the soil.

The cutting and drawing of fire-wood, rails, and lumber, affords some employment for the leisure of winter, and generally very profitable employment. It seems the appropriate season for this provision for the future. Fuel is an indispensable necessity—if the summer's store is not procured now, it will stop the farm work every week, perhaps, at its busiest moment, to replenish the failing supply by another "jag." Or it may purloin the rails from the fences, every loose bit of lumber about the premises, or attack shade and fruit trees "to keep the pot a boiling," if the demand is treated with neglect.

Not to go into further detail, we may close with the trite remark, that there are a thousand things needed in summer which may be prepared in winter, thus gaining valuable time from its more important labors. Implements and buildings may be put in order, material for fences drawn and prepared, the stock of manure largely increased in amount and value, animals domesticated and trained to labor, and plans arranged for the future operations of the year.

"BALLOON FRAMES"—12th Article.

[Written exclusively for the Country Gentleman by GEO. E. WOODWARD, Architect and Civil Engineer, No. 29 Broadway, N. Y.]

The early history of the Balloon Frame seems to be somewhat obscure, there being no well authenticated statements of its origin. It may, however, be traced back to the early settlement of our prairie countries, where it was impossible to obtain heavy timber and skillful mechanics. "Loudon," in his Encyclopedia, published twenty-five years ago, gives an illustration of a portable frame to be covered with canvass, which was designed to be shipped from England to any of her colonies and to fulfill its destiny as a temporary home. This portable frame was made of light pieces, and combined some of the principles of the now well known Balloon Frame. As we have not been able in our researches to trace farther back than "Loudon," any allusion to a frame of this character, we must therefore conclude that the Balloon Frame, has only come into existence within the last generation. It is by no means probable, however, that the use of the Balloon Frame in this country originated from any published suggestions, but the fact seems patent to any one who has passed through the pleasures and the vicissitudes of the life of a pioneer, that his own necessities have indicated the adoption of some principle in construction, that with the materials he has at hand, shall fulfill all the necessary conditions of comfort, strength and protection. To these circumstances we must award the early conception of this frame, which with subsequent additions and improvements, has led to its universal adoption for buildings of every class throughout the States and cities of the west, and on the Pacific coast.

In the older States with their vast forests of timber, and great lack of saw mills, the early pioneers found a secure and economical home in the log cabin, but this is not the case upon the prairies, often remote from timber and mechanics, which can only be obtained at a great expenditure of labor and money; they have been obliged to study rigid economy, in both materials and workmanship. The portable steam saw-mill, which now keeps an even pace with "the star of Empire that westward takes its way," is always ready to rip up into Balloon stuff the oftentimes too small and limited groves of timber which the annual prairie fires have spared. So successfully has necessity illustrated the value of this invention to which she has given birth, that its application has become general with all classes of the community who seek to get the greatest amount of good with the most economy of means. Nor is it overlooked or underrated by those who seek to build elegant and substantial structures, without closely considering the cost. So thoroughly useful and practical has the Balloon Frame proved itself to be, throughout the Western and Pacific States, that its adoption among the older settled portions of our country cannot be looked upon as a matter of experiment. It is, as far as climate and exposure are concerned, better adapted, as we have not the same steady intense cold, nor the howling searching prairie blasts that characterizes the winters of Northern Iowa and other parts of the west.

There is no reason why the Balloon Frame may not be made as warm and comfortable, in every respect, as any style of frame known, for there is scarcely any portion of our country that is not blessed with the materials for concrete, brick, or lumber. One of these three requisites for making a house warm is almost certain to be found in any locality that is worth living in.

In the use of concrete it is better to leave a space or air chamber between it and the siding, the spaces between the studding to be closely filled up with it, and if brought a little forward of the face of the studs, the plastering may then be laid directly upon it, no lathing being required. To concrete a Balloon Frame in the manner usually adopted, it is only necessary after the frame is finished to tack a rough board to the inside of the studding, first interposing a strip of the thickness of two lath against the face of the stud, that the face of the concrete, when finished, may

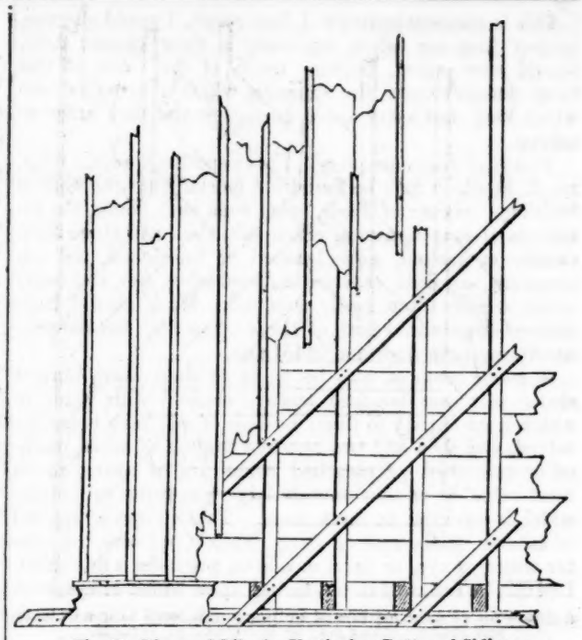


Fig. 15—Diagonal Ribs for Vertical or Battened Siding.

project that much from the face of the studding. On the outside another board must be tacked, which is prepared thus: Take an inch board, place it flat against the studding, and with a red chalk pencil mark the places where the studs touch the board; then saw up another board of the same width into lengths equal to the distances between the studs, and nail them flat to the first board; these lengths are nailed between the chalk marks and are just the width of a stud apart. The object of this is to make the concrete finish one inch back of the outside face of the studding, and which shall form an air chamber between the concrete and the siding. If vertical siding be used the diagonal ribs as shown in the engraving, fig. 15, will form the air chamber, and the concrete may finish flush with the studding outside.

Ribs for vertical siding may be put on in two ways; one as shown, by which the ribs run over the sill and are nailed to it; a strip of the same thickness as ribs, say 1¼ inches, nailed on to the sill to fill up the space between the ribs, and is then covered by the outside plinth or base. The other plan is to set the studs back 1¼ inches from face edge of sill; then let the end of ribs bevel down on the sill, or dovetail them into the edge. The strongest are those that lap or dovetail. In constructing a house of any kind it is a first rate practice to concrete thoroughly between the ends of the floor joists up even or above the top of the floor, it being a sovereign preventive against rats in the walls, ceilings and partitions.

In concreting a frame it is only necessary to add, that two wide boards only are necessary, for as fast as the concrete hardens the nails are drawn and the boards raised and tacked on for the next course. We may also state that if the plastering will not adhere to the face of the studs and the side girth, which it may not do unless very rough, they must be lathed, and as the concrete is brought forward of the face of the studding the thickness of two lath, it will give a chamber for the clinchers of the thickness of one lath, which is sufficient. The air chamber prevents dampness, and promotes warmth. In using concrete the studding may be two or three times as far apart, according to size of building, as would be necessary if none were used. The same number of rafters and floor beams would be required, but they rest on the plate and side girth, which are imbedded in the concrete, and are thoroughly secure.

Studding may also be bricked up with an inferior quality of brick, leaving an air chamber in the manner already described, and plaster directly on to the brick, without lathing. Brick is sometimes put in on edge, but when so used the studding should not exceed 24 inches apart. It is usually best to make the brick wall 4 inches thick.

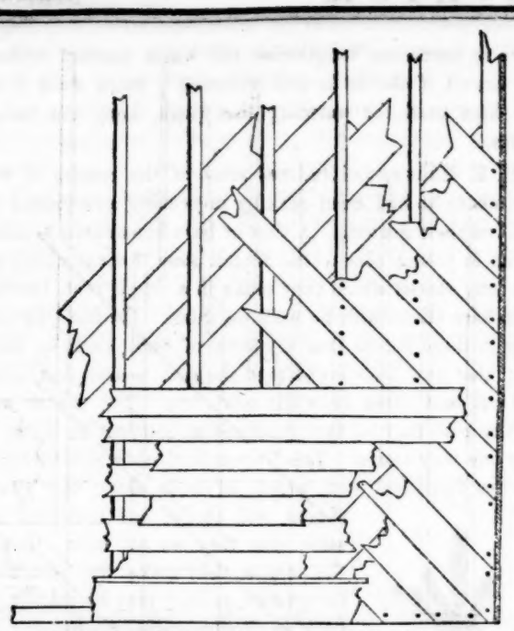


Fig. 16.—Showing the Manner of Putting on Diagonal Lining Outside and Inside. Siding may be Horizontal or Vertical.

A house may also be made warm by lining, and where lumber is cheap and the exposure great, it should be lined both inside and outside. We show the manner of lining in the following engraving, fig. 16; either outside or inside lining may be used, or both together. Where diagonal lining is used it should be reversed or run the other way on the opposite side of the house.

In fig. 17 the lining is put on horizontally, and where a frame is lined inside it is best to do it as shown in fig. 17, as it becomes an aditional tie to the corners of the frame, it being alternately lapped on the corner stud.

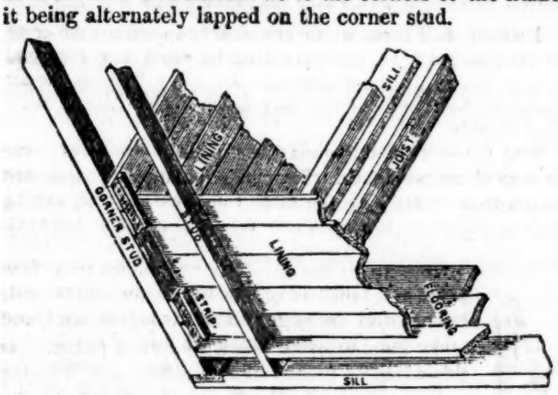


Fig. 17.—Manner of lining Balloon Frames inside.

Where both outside and inside lining are used, and put on diagonally as shown, it must be evident to the most confirmed skeptic, who is disposed to question every theory on the strength of materials, that this is a well knit, strong and enduring structure, that must satisfactorily answer all objections that may be urged against it.

On the score of economy and warmth, we give the preference to concrete or brick, as both these save lining and lathing. On the score of strength we should prefer the diagonal lining, and only for the reason that it makes doubly strong what is abundantly strong without. It is a natural supposition that every thing when first adopted should be heavy, cumbersome and strong; but experience has shown that our clipper ships, light buggies, and improved plows, are more efficient, rapid and durable than their original representatives.

Large Cow.—According to the Boston Journal, the largest cow ever sold in Brighton market, was purchased there a few days since by A. R. Barrows. She weighed when alive 2650 pounds, and when dressed 1850 pounds. There was taken from her 105 pounds of rough tallow and 275 pounds of kidney tallow—twice the amount usually found in a fat ox. She was six years old.

PREMIUM CROPS IN WISCONSIN.

Eds. Co. Gent.—We think that Winnebago county, Wisconsin, is as good a county as any in the west for farming, which I think I can, in a measure, prove to you by giving you a statement of the crops which received the premiums at our last County Fair.

Wheat.—The first premium of a fanning mill, was awarded to M. C. Bushnell of Omro, for 65¾ bushels of Canada Club wheat, raised on one acre of land. The second premium of $3, was awarded to G. W. Lathrop of Algoma, for 45 bushels of Canada Club wheat raised on one acre of land.

Indian Corn.—The first premium of a corn sheller, was awarded to E. S. Durfee, for 136½ bushels of shelled corn of King Philip variety, raised on one acre of land—planted 2½ feet apart one way and 18 inches the other—three stalks to the hill. Second premium to M. C. Bushnell of Omro, for 104¾ bushels of shelled corn of King Philip variety, raised on one acre of land. Third premium to G. W. Lathrop, for 103 bushels of shelled corn of the King Philip variety, on one acre of land—planted 3½ feet apart each way.

Oats.—First premium to John Howlill, Black Wolf, 54 bushels, 22 lbs., on one acre of land.

Barley.—First premium to J. C. Wheeler, 55 bushels 28 quarts on one acre.

Carrots—*quarter of an acre.*—First premium to Sam'l. Charlesworth of Omro, 414 bushels. Second premium to M. C. Bushnell of Omro, 360 bushels.

Mr. Eli Stilson raised the largest amount of carrots on a quarter of an acre, but did not compete for a premium, but is a competitor for the State premium, having raised 421 bushels, or at the rate of 1684 bushels per acre.

The above statements were made under oath, and as I am well acquainted with all parties, I think there can be no doubt but that it is correct. G. W. Lathrop.

Winnebago Co., Wis., Jan. 17, 1861.

[For the Country Gentleman and Cultivator.]

HUSKING CORN.

A writer in your last issue speaks of a young man in his employ, who husked in one forenoon, and quit at 12 o'clock, *forty bushels*, and bound up part of the stooks—that *he* superintended the measuring, &c., then adds: "If any man or boy can beat this, we shall be pleased to hear from them through the Cultivator."

He does not say whether the bushels were ears or shelled corn. In either case, we have men in Salem county who can husk more corn in a given time.

I know a man who did husk in four and a half hours, between six and half-past ten o'clock the same forenoon, one hundred bushels of ears of corn—making sixty-two bushels shelled corn, at the rate the corn usually turns out from the bushel of ears. I also superintended the husking and measuring, and know the account to be correct. The corn was of a large eared variety and would yield near seventy bushels per acre.

He had a man who boasted on his fast husking, and after performing the above feat, he offered said man ten dollars if he would husk as much, or five dollars if he would find any other man who would—in the same length of time—in a field of better corn. But the offer was never accepted—the trial never made. After that, in better corn, on a short trial against time, he husked over eleven bushels of ears in 21 minutes, or at the rate of forty bushels in 75 minutes. D. P. *Salem, N. J.*

Massachusetts.—The annual meeting of the Franklin County Agricultural Society was held at Greenfield, Jan. 14th, and the following officers were chosen for the year ensuing: President, Henry W. Clapp, Greenfield; Vice Presidents, Thomas J. Field, Northfield, and Josiah Fogg, Deerfield; Secretary and Treasurer, James S. Grennell, Greenfield, and twenty-six trustees.

WINTER VISITS TO NURSERIES.

The nurseries of Western New-York are the most extensive in the world, and interest is always felt among many of our readers in relation to their operations. During recent hasty calls at a few of them, we obtained some information which may prove interesting.

Nursery of T. C. Maxwell & Co., *Geneva, N. Y.*—This covers over 200 acres. The land has been all tile drained, at distances of 30 feet apart, the drains from 2½ to 3 feet deep. There must have been consequently over 50 miles of drains. The excellence of their stock shows the utility of the operation. Most of their business is in the wholesale trade with dealers—they have no agents in the field. They have lately erected three glass structures, each nearly a hundred feet long, for propagating houses. They are neatly built, and serve as models. They find the long shallow wooden tanks, for the circulation of hot water, now so commonly adopted, the cheapest mode of heating. The tanks are about 4 feet wide, and the water two inches deep. A division is made lengthwise, making two parallel channels or tanks each two feet wide—the water flowing outward in one, and back in the other. The water was formerly covered with slate, and the sand, in which to set the pots, placed on the tile. They now find board covers better, being less liable to breakage, cheaper, and rendering the heat more uniform. When the water flows out of the heater into the tank, its temperature is about 130° Fah., which is reduced about 20° on its return. A tank covered like this would not warm the apartment sufficiently, and a few metalic pipes are added.

The proprietors are now engaged in root grafting; a number of hands were busily employed in grafting *moss roses*, of which they had already potted and given a bottom heat to some 15,000. They nearly all grow. The mode is the same as that practiced for many years by nurserymen, but for those not familiar with it, we give the accompanying cut, fiig. 1. The Manetti root is cut into pieces an inch and a half long, and a graft nearly the same length inserted by cutting half way into the root, as indicated in the figure, and the graft cut and bound on with small waxed cotton twine or thread. Care is taken that an exact coincidence is made between wood and bark, on one side, as in common grafting. There are two important advantages in this mode of propagating. The Manetti root imparts nearly the same vigor as is given by budding on this rapid growing stock. But as the roots, properly selected, do not contain buds, there is no danger of the stock sending up suckers to replace the budded shoot, and to disappoint the owner by its worthless bloom. The owners of this nursery employ about 20 men at the present time, and tripple that number in the summer. Their establishment may be regarded as one of first class character.

Fig. 1.

W. T. & E. Smith, *Geneva*, have also an extensive nursery in the same neighborhood, but circumstances prevented an examination of the premises.

Nursery of H. E. Hooker & Co., *one mile east of Rochester.*—This nursery has long maintained a high reputation. Over 200 acres are devoted to it, and nearly that amount planted with trees. There is a moderate extent of propagating houses. They are warmed with hot water tanks, like those just described, which extend around the apartment, (being connected by pipes at the corners,) and have no partitions lengthwise, the water passing around the circuit of the tanks and returning. Brick flues from the fires used for warming the water, keep the house warm.

H. E. Hooker pointed out some of the results of experiments he had been making in pruning evergreens to thicken their growth. A thin or bare appearance is often given to young pines, (the Scotch pine, for example,) by the long shoots which they make in a single year, leaving long bare sticks with no buds on them. He finds, by cutting in these shoots thus destitute of buds, early in summer, that new buds are formed the same season just below the cut, and these grow the next year. The Scotch and White pine may be thus rendered as compact in form as any one may desire. The Norway and other spruces being always furnished with plenty of buds along the young shoots, will throw out branches the same year they are cut back. Hence the reason they make the best trees for screens, as they may be readily cut back as circumstances require, and immediately thicken up again. These experiments are corroborated in their results by other cultivators.

Fig. 2.

The accompanying figure (fig. 2,) shows the upper portion of a young tree of the Scotch pine, as it often appears after a rapid growth; *a* is the place where the shoot should be cut the first summer of its growth, where it will form new buds, and the next season throw out a tuft like that shown at *b*.

Bissell & Salter's nursery, nearly opposite that of H. E. Hooker & Co., is not extensive, and is devoted chiefly to the propagation and culture of the American varieties of the grape, and the smaller fruits generally; for the former it has become widely known, and maintains an extensive correspondence. The grape is largely propagated by grafting. Many thousands had already been worked in this way the present winter. Being subjected to a bottom heat under glass sash, they were already making some growth. They are transferred to other pots once, before being set out into open ground, and make good saleable plants by next autumn. As this mode of propagation is rather new, we give our readers a simple figure showing how the operation is performed. (Fig. 3.) The cleft is made in the short graft, and a small root, an inch and a half long, inserted. The parts are bound well together by strips of waxed paper, leaving a small portion of the lower end of the graft open, for the free emission of roots.

Fig. 3.

Bissell & Salter heat their houses wholly by shallow tanks—having no heating pipes like those of T. C. Maxwell & Co., nor any brick flues, as in the houses of H. E. Hooker & Co. To effect this object their water is heated nearly to boiling; and the bottom of the tank being made of lead, some heat is given off below; and the tops being covered with slate, a large portion passes off above, the slate being exposed, and the box containing the sand bed for the pots being raised a few inches from the tile, to allow the heated air to flow out into the apartment.

The nursery of A. Frost & Co., near the southern boundaries of the city, contain as we are informed, nearly 300 acres, but not finding either of the proprietors at

home, we were unable to examine them properly. They have good green-houses of moderate extent.

ELLWANGER & BARRY, near Mount Hope, occupy over 500 acres planted with nursery. About one-half of their land has required underdraining, and they have accordingly ditched it thoroughly. In doing so, they have laid between 60 and 70 miles of tile. The result has been highly satisfactory. One piece of land of some 20 acres was wholly unfit for any purposes of cultivation, but draining has made it the finest and most valuable piece of land they have. It had long been enriched by the wash of higher ground, but its fertility had been inaccessible by being partly buried under water. Late the past autumn their common laborers drained wholly by hand a very wet piece of 20 acres in *ten days*.

The proprietors have eight large glass structures, mostly propagating and green-houses, densely filled with plants. One is occupied exclusively for wintering roses, and contained about 11,000 pots. The glass roof being quite low, it is easily kept warm by a single pipe from an adjoining structure, passing but once around near the exterior. They propagate the grape extensively by grafting.

They have given much attention to the cultivation of weeping ornamental trees, and by a little care trained them into more perfect forms than the trees naturally assume. We present a sketch by way of illustration—fig. 4 showing the common way in which the new weeping willow (worked standard height) usually appear after the lapse of a few years; and fig. 5 is a portrait of a tree in sight from their office windows, trained into a fine umbrella shape, by simply tying hoops beneath, as shown by the dotted lines. The branches by growth become stiff enough to sustain their own weight, and the hoops are then removed.

They have not been excelled, if equalled, by any establishment in America in proving new varieties of fruit, and especially pears. Among the newer sorts of winter varieties, they are much pleased with the *Josephine de Malines*. They showed some fine specimens of this variety, and gave it as their opinion that the fruit would keep as long as the Easter Beurre. It is not so highly flavored as some other winter sorts, but there is a softness and delicacy both in texture and flavor, that must render it a favorite with many.

Fig. 4.

Fig. 5.

About 50 men are constantly employed during the present winter, and, of course, many times this number in spring and summer. This great establishment is regarded as the largest in the world, and it has become highly celebrated for the completeness and excellence of its stock, and for the energy, system and accuracy with which it is conducted.

We have stated many facts which are doubtless familiar to experienced propagators, but to others we trust some of the information may be interesting and valuable.

Borrowed garments seldom fit well.

WINTER CARE OF CATTLE.

EDS. CO. GENT.—In looking over our agricultural papers, we find much of valuable information and useful suggestion, sometimes mixed with things to which we cannot fully subscribe. On the latter we have offered comments occasionally, and would do so in the present instance—offering no views, however, but those tested by experience. Three "practices" in the winter care of cattle, are characterized by a New-England writer, as *wasteful*, *cruel*, and *foolish*; we cite them below.

1. Feeding out Cornstalks.

"The practice of scattering fodder, especially cornstalks, on the ground or snow, is very wasteful."

Granted, if the ground is muddy, or the snow melting and slushy—otherwise not. On hard-frozen ground or snow, if properly fed out, (always unbound, and placed in even portions around the yard,) cattle will eat cornstalks with less waste than from any manger ever constructed. Especially is this true if cattle are, as recommended by this writer, fed in stalls without fastening, as they will almost always in tearing the leaves from the stalks step back from the manger, and drop the stalk partly eaten outside, and then step on it as they go to the manger for another. On hard frozen ground, or a good stiff, dry sod, the cattle do not often refuse that trodden upon, as they almost invariably do in the stall. Straw and coarse hay is more conveniently eaten from racks and mangers, and in wet or thawy weather should never be fed upon the ground.

We have wintered cattle largely upon cornstalks, and have tried various methods of feeding cattle, and it is our present practice to feed most of our stalks on the ground; those we feed to calves kept loose in stalls with mangers, and those fed to cattle tied in the stable, being less fully consumed than those fed around the yard, or in warmer weather on a firmly sodded field. In rainy weather, we feed hay and straw, in racks and mangers under sheds, and usually feed such fodder always in that way, or in the stable.

Stalks should always be unbound when fed out on the ground, however small the bundles may be, if a number of cattle are fed together, otherwise the bundles will get drawn into heaps, as the cattle drive around the yard, and the underlings will lose their proper share.

2. Fastening Cattle in Stalls.

"Cattle should never have their heads confined by ropes, bows, or stanchions; it is a cruel practice."

We cannot imagine in what the cruelty consists, and the writer gives no reason for the denunciation. If cattle were *lousy*, it would be cruel to keep them fastened so that they could not lick or scratch themselves, unless they were given a daily currying. It is the opinion of some of our best cattle-feeders, that stock should be allowed the liberty of the yards and sheds at all times during the day, except when taking their food, and at that time it matters little how they are fastened, if only so that they can take their meals comfortably and lie down at ease if they desire to do so. Some reasons why we would tie cattle are hinted at in the preceding section; another is that they will keep cleaner than if allowed more liberty of movement. It is also less trouble to take care of them.

3. Feeding from Straw Stacks.

"Another foolish practice is to allow cattle to feed themselves from straw-stacks."

On this we would only observe, that if cattle are to *eat straw*, they will eat more, enjoy it better, and waste less, when allowed to help themselves from a well built straw-stack, than in any other way—unless it be cut, mixed with meal and soaked or steamed in hot water, which is not generally done among common farmers. Both cattle and sheep like to help themselves, and seem to eat most heartily that which costs them a little trouble to obtain. Still we would not put obstructions in the way of our stock to prevent their getting plenty of good food, but we are perfectly willing they should help themselves to all the straw they desire.

A READING FARMER.

[For the Country Gentleman and Cultivator.]

CURE FOR THE HORN-DISTEMPER.

Messrs. L. Tucker & Son—I notice in the Co. Gent. of Jan. 31, a statement from S. Willson of Illinois, saying he has an ox ailing since last harvest—that he coughs continually, and he wishes to know if there is any cure for him. My answer is yes—bore both his horns at once, and put in with a syringe, pepper, salt and vinegar, steeped strong, every other day for ten days, and his ox will recover if he has not let him go too long.

I keep quite a large stock of cattle, and I used to think that none but poorly cared for cattle would ever be troubled with the horn-distemper; but I have had as fat cattle as I ever owned, taken with the horn-distemper, and they are usually taken coughing, groaning, and apparently troubled to breathe. In some instances I have been obliged to cut off both horns to save the life of the animal. I had a very fine heifer from Kentucky, which was taken with the disease, and I was not willing to take off her horns, but she had been so long with the disease that boring was not sufficient. She finally became blind, and was past getting up alone, when I resorted to cutting off her horns. I cut off one first, and after it had been off about twelve hours, the eye on that side began to show signs of seeing. I then cut off the other horn, and in three days her eyes were as well as ever. She soon began to eat, and fully recovered, and is at this time one of the best milkers in my dairy of seventy cows. All that is necessary when the horn is cut off, is to fill it up with tar and bind a rag over it until it heals. For all sickness or difficulty in my herd of cattle, except they get their legs broken, I bore or saw off the horns. A. M. C.

St. Albans, Vt.

[For the Country Gentleman and Cultivator.]

Use of Plaster in Otsego County.

— One thousand tons of plaster will be distributed in the circumference of fifty miles, and it is the cheapest fertilizer we can get—it costs $4 at the mill. It is well adapted to our soils, and indispensable in the production of corn and potatoes. Every year increases its quantity and unfolds its relative value; still it is limited in its application, because it costs a little something; and farmers, blind to their own interest, will toil on, scarcely making both ends meet, exhausting the soil and starving their cattle and themselves. When if, on the contrary, a few dollars were expended in plaster, and sowed at the rate of one bushel per acre on sidehills, barren knolls, and back lands inaccessible to manure, and pastured with sheep, they would soon find those barren fields covered with the richest verdue; and occasionally changing to cattle or colts, will be found beneficial.

On such fields I have found that cows do better, and make the best butter and cheese. In fact it is the most profitable way to manage such lands, and when fields have been exhausted by continual cropping, if too poor to bear clover, sow buckwheat, and plaster it soon after it comes up, which will, when turned under and followed by clover the same way, in a short time be made productive.

I am speaking of those lands where farm-yard manure is not to be had. But there need not be such a vast amount of unproductive land in our county, if farmers would pursue a systematic course, and instead of plowing over a large territory and getting a half crop, often less, plow what can be done well and manured. Seeding down the second year will enrich the land, and bring more returns with less labor.

I will close this article by adding what I think would prove beneficial, and which I have found by experience, that *perseverance*, applied at the rate of ten or twelve hours a day, with the knowledge of a good agricultural paper, will secure the most beneficial results.

Otsego Co., N. Y. H. P. NORTON.

[For the Country Gentleman and Cultivator.]

QUERIES ABOUT CHEESE-MAKING.

Eds. Co. Gent.—Will you, or some of your readers, give me some information through the Co. Gent. in regard to some things in the manufacture of cheese.

I make from 4,000 to 5,000 pounds of cheese per annum. Now I have bought all the books that I know of that pretend to give information on the subject; and all that I read does not inform me what effect or influence certain parts of the process has on the cheese.

1. Some parties do not cook the curd at all. Others scald from 30 to 40 minutes, at a heat of 100° to 108°. Now what influence does that bear upon the cheese?

2. Does curd that has come quick or hard require as much cooking as that which has come soft?

3. Will not curd that has come soft, or has been 50 to 60 minutes in coming, produce more pounds of cheese to a given quantity of milk than that which has come in 30 minutes, hard? My experience leads me to think it does.

4. Will an excess of rennet, if it be sweet, ever make cheese smell or bear that bad taste called rennety?

5. I am much troubled to keep my cheese, when green, from moulding. I turn and rub with butter daily. Now some parties do not dress with butter at all.

6. Some of my cheese will be full of cracks, while others are not.

I am gradually taking up the system of soiling. I keep an exact account of my dairy, of the raising of pork, and the expense of my cows; also the shrinkage of cheese, the quantity of milk to a pound of cheese, &c., which, when I have tested to my satisfaction, I will give to your readers, if you think it would interest them.

I have fed out to my cows the past season some 250 bushels of beans, and three tons of cotton seed meal.

Lyme, Ct. M. L. C.

We hope some of our cheese-making readers will furnish an answer to our correspondent's inquiries, and we assure him we shall be pleased to receive the details of the management of his dairy, to which he alludes.

Estimating Weight of Hay in Bulk.

Messrs. Tucker & Son—In your Co. Gent. of 20th Dec., a subscriber asks for information in regard to measuring hay in stack or barn. I have just sold a bay of hay of the following dimensions, and it weighed out just eight tons, 2,000 lbs. a ton—19 feet square, 14 feet high—it was well tramped in, and was filled up full, so that it measured as above after it had settled. You will see by making a calculation, that it takes about 600 cubic feet in this case to make a ton. The hay was, say half red-top, balance timothy and clover, with but little clover. It was full as heavy as if it had all been timothy. I have bought and sold a good deal of hay by weight, and find that nine times out of ten, neither a stack or bay, or even a load of hay, will weigh as much as generally estimated.

We have had as yet but little cold weather, but cloudy and unpleasant two-thirds of the time for the last six weeks. W. Edwards. *Tennessee, Dec.* 29, 1860.

Out-Fall Drainage.—We have no law whereby owners of lands on lower grades than those of their more enterprising neighbors, can be compelled to *drain*, that *all* may be mutually benefitted, which is doing much injury to the agriculture and beautifying of our whole State, and no doubt such a statute, judiciously guarded, would be generally advantageous without injustice to any. J. W. *Clyde, N. Y.* [This question is one of much importance, and should attract the attention of our Legislature. Though but little has been said about it in this country, the English Agricultural journals have for some time past been largely occupied in the discussion of the subject, and meetings have been held in England and Scotland, and committees appointed to apply to the government for a "general drainage and out-fall law."]

Dairy Farm of Hon. Zadoc Pratt, Greene Co.

This farm, situated in Prattsville, N. Y., contains 365 acres, forty of which are fine alluvial soil—the residue, what is called hemlock land, (loam and gravel,) lying on the eastern slope of the Catskill Mountain. The hemlock was originally cut for the purpose of obtaining the bark for use in Col. Pratt's tannery, and the land afterward cleared up, seeded down, and fenced with stone wall, and the whole converted into a Dairy Farm, upon which 50 cows have been kept throughout the last five years. Accurate accounts of the management, products and expenses of this farm, for the years 1857, 8 and 9, have been published in the Transactions of the New-York State Ag. Society; and Col. PRATT has kindly furnished for the COUNTRY GENTLEMAN the following interesting statement, embracing the entire statistics for four years—1857 to 1860:

STATISTICS OF HON. Z. PRATT'S Dairy Farm for the usual season of about eight months, for the years 1857, '58, '59 and '60—Fifty Cows of what are called native breed, being kept each year:

	1857.	1858.	1859.	1860.
MILK.				
Whole weight—lbs.....	254,736	260,450	240,700	217,736
Or gallons,.....	31,842	32,556¼	30,087	26,276
Aver. for each cow—lbs.,	5,094.48	5,209	4,814	4,354.75
Or gallons,.....	636.31	651.12	601.74	525½
Average per day—lbs.,...	1,044	1,067½	982½	888.72
Or gallons,.....	130½	133.4	122⅞	107.28
Av per day each cow—lbs	20.80	21.30	19.65	17.77
Or gallons..... ..	2.60	2.70	2.45	2.14
Gt's av. per day per cow,	24.18	31.50	28.35	25.60
Or gallons,.....	3.25	3.31	3.53	3.4
BUTTER.				
Whole no. pounds made,	6,500	8,050	8,300	9,143
Average per cow—lbs.,...	130	161	166	182.86
Average per day—lbs., ..	26.61	33	33.92	37.72
Av. per day per cow—oz.	8.50	10.56	10.84	11.94
Av. milk to 1 lb butter-lbs	39.20	32.33	29	23.30
Or quarts,.....	20	16.16	14.50	11.29
PORK.				
Whole amt. p'rk made-lbs	4,627	7,403	6,455	6,516
No. pounds for each cow,	92½	148	129	130.30
Which realized per cow,.	$6.56	$8.42	$8.36	$9,12
Amt. realized for each cow from butter,.....	30.95	38.48	41.40	42.97
Total receipts per cow,..	37.51	46.90	49.76	52.09
SUMMARY.				
Received for butter,.....	$1,547.54	$1,924.02	$2,070.00	$2,148.89
do. pork,.....	328.16	421.08	418.00	456.12
do. calves,....	.....	.....	.....	80.00
	$1,875.70	$2,345.10	$2,488.00	$2,685 00
Expenses for working farm, including $700 for each year, for interest on investment for farm and stock, $10,000,.....	$1,415.50	$1,380.50	$1,550.00	$1,125.75
Net profits above interest,	$460.20	$964.60	$938.00	$1,359.26

Allow me also to present the following table, showing the relative weight and strength of milk obtained by actual weight and measurement on the first day of each month, the milk being kept separate, and the butter weighed:

	Qts. to make 1 lb. Butter.	Weight per gallon.
May 1, 1860,.....	12.96	7.91
June,.....	11.43	8.28
July.....	12.14	8.30
August,.....	11.35	8.66
September,.....	11.83	8.09
October,.....	9.38	8.53
November,.....	8.21	7.56

The feed was two quarts provender per day, (corn in the ear, ground with oats and buckwheat,) and hay from Feb. until May 10; grass alone until October 10, when we commenced feeding pumpkins; our milk-room was at as uniform temperature as possible, but may have varied some 10 degrees in the hottest weather.

The above table shows quite a difference in both the strength and weight of milk, which we are unable to account for, as the weather and feed has been remarkably uniform through the season. Can any one tell us the cause?

We have raised on a little over five acres, 367 bushels shelled corn, (being 64½ bushels per acre,) 70 loads pumpkins, and about 49 tons cornstalks—which we find to be a profitable crop.

PROCEEDS OF CORN.	
367 bushels, worth here 7s. per bushel,.....	$321.13
70 loads Pumpkins, 12s.....	105.00
Net profit,.....	$426.13

As the stalks well paid us for our labor—fed the last Jan. 15th, without cutting up.

We have also raised 150 bushels of oats, or about 40 bushels per acre—100 bushels rye, or 30 bushels per acre, and 1,200 bushels turnips from one acre; our hay averaged 2½ tons per acre, grass and clover.

We milk about 50 cows morning and evening; set about 2½ quarts of milk in warm, and 3 quarts in cool weather, per pan on racks—keeping the milk-room as near 62 to 65 degrees as possible. The cream only being churned in a barrel-dash churn by water; the butter after first working, is placed in pans and set on a cool stone floor in the cellar until the next day, and then worked in the usual way. One ounce Ashton's salt per pound worked in, then packed and set in a cool dry cellar, on two joice three inches high, (so that the air can circulate under,) a cloth put over the butter and cover with coarse Turks' Island salt washed clean, and over all a flat round stone cut to cover the firkin.

Our aim has been not so much to excel others as to improve ourselves, and we flatter ourselves that our figures show that we have so far succeeded.

In this connection allow me to say to that class of my brother farmers who are plodding on in the steps of their forefathers—with nothing to guide them, except that they have heard that their grandfathers had done so and so, in this or some other section, with no knowledge of profit and loss resulting from the management of their farm, except from the few dollars they may have in their pockets at the end of the year—that it is time for you to make and determine by actual experiments, what crops pay you the best, and what course of treatment your particular soil requires, for as soil varies, so must its treatment if you would get the greatest net returns; that you should determine what kind of stock your lands are best adapted to, and what kind of treatment such stock requires, and endeavor to obtain that knowledge in your business which will enable you to do everything understandingly, leaving money in the bank.

And above all let me say to you, do away with the popular idea that the business of farming is degrading, for it is the manner in which it is done that makes it not only honorable, but the most ennobling pursuit you can follow, and it is in your power to make it the most pleasant. Do not use your hands alone, but let your head be also used to lighten and guide your labors. "Knowledge is power" as truly to the farmer as to any other class of community.

Z. PRATT.

[For the Country Gentleman and Cultivator.]

JEFFERSON COUNTY vs. VERMONT.

MESSRS. EDITORS—In Co. GENT., Jan. 17, present vol., is an extract from St. Albans (Vt.) Messenger, of amount of butter and cheese shipped for four years past from railroad station at that place, and a request for figures in reference to the amount shipped from any station that may out-do St. Albans. In 1858 there was shipped of Jefferson county butter and cheese, over the Watertown and Rome railroad, as may be gathered from the Viewing Committee's Report of the Jefferson Co. Ag. Society for 1859, 5,676,695 lbs. butter; 5,029,940 lbs. cheese. 124,500 lbs. butter and 118,000 lbs. cheese, were shipped by water the same year. By far more than one-half of the above amount was shipped from the railroad station at Watertown. We have figures for one year only.

Jan. 10, same vol., we learn through C. T. A. that the number of inhabitants in Wilmington, Vt., is about 1,300, and there is about that number of papers distributed through the post-office at that place. C. T. A. also calls on others for figures. From a correct list kept by the Viewing Committee above mentioned, we learn they visited 37 families in the discharge of their duties, and found on an average a fraction less than five weeklies to each family. The families visited were all farmers, and would not average more than five to a family.

Vermont is a great nation, but the farmers of Jefferson County claim to be somebody.

DANIEL PARKER,
Watertown, N. Y., Jan. 1861. Ch'n. Viewing Com. 1859.

Winter Meeting New-York State Ag. Society.

The Annual Meeting of the New-York State Agricultural Society was opened at the Assembly Chamber on Wednesday the 13th—the President, Hon. B. N. HUNTINGTON, in the chair. Owing to the obstruction to travel in the breaking up of the Mohawk, Hudson, and other streams, the attendance was less general than has sometimes been the case. The first business was the presentation of the Treasurer's Report, a summary of which we give:—

Luther H. Tucker, Treasurer, in account with the New-York State Agricultural Society:

Dr. 1860.	
To cash on hand at date of last report,	$5,686.07
Annual memberships received,	103.00
Life memberships received,	200.00
Premium returned,	10.00
State appropriation for Entomologist,	1,000.00
do do for Society,	700.00
Cash from Elmira local committee,	1,200.00
Net receipts of Elmira Fair,	9,042.95
Rent of refreshment stands at Elmira Fair,	500.00
Interest received on cash on hand,	121.80
	$18,563.82

Cr. 1860.	
By cash payments as follows:—	
Premiums at Winter Meeting, 1860,	$533.00
Expenses at Winter Meeting,	61.73
Survey of Onondaga county,	300.00
Premiums of previous fairs,	539.75
Expenses of previous fairs, including settlement of Albany claim of 1859,	1,256.43
Salaries and travelling expenses,	3,012.31
Salary of Entomologist, Dr. Asa Fitch,	1,000.00
Expenses of Library and Museum,	146.07
Postage account,	181.02
Incidental expenses,	199.68
Printing, advertising and stationary,	614.69
Expenses of Elmira Fair,	3,635.94
Premiums at Elmira Fair,	5,290.49
Cash on hand to new account,	1,792.71
	$18,563.82

The account is certified correct by the Finance Committee, and, on motion of Mr. PETERS, the Report was accepted and adopted.

Mr. Secretary JOHNSON then read the Report of the Executive Committee, in which, as usual, the prominent features in the Agricultural History of the preceding year are referred to at considerable length.

Mr. CORY offered a resolution for the usual Committee to nominate officers, and fix upon the place for holding the next Fair. Adopted, and the following names handed in by the members from the several districts:—

First District—E. G. Faile, John Haven.
Second District—W. T. McCoun, C. S. Wainwright, Luther Caldwell.
Third District—Luther Tucker, Amos Briggs, Norton S. Collin.
Fourth District—J. A. Corey, Nathan Lapham, W. W. Rockwell.
Fifth District—James A. Bell, John Butterfield, Squire M. Brown.
Sixth District—Jeremiah Dwight, Asa Pellet, F. M. Rotch.
Seventh District—J. O. Sheldon, H. T. E. Foster, Benj. Birdsall.
Eighth District—T. C. Peters, Franklin Philbrick, Woolsey Johnson.

Mr. PETERS moved that a Fair be held, next July, in Canandaigua, or some other point in the interior of the State, for the trial of Agricultural Implements. [Laid over.

The Committee of Twenty-four agreed on the following report:—

PRESIDENT,
GEORGE GEDDES of Onondaga.

VICE-PRESIDENTS.

1. John Jay of New-York.
2. Benjamin F. Camp of Westchester.
3. Herman Wendell of Albany.
4. John A. Corey of Saratoga.
5. S. D. Hungerford of Jefferson.
6. Ezra Cornell of Tompkins.
7. D. D. T. Moore of Monroe.
8. Samuel W. Johnson of Cattaraugus.

CORRESPONDING SECRETARY—B. P. Johnson of Albany.
RECORDING SECRETARY—Erastus Corning, Jr., of Albany.
TREASURER—Luther H. Tucker of Albany.

EXECUTIVE COMMITTEE—T. C. Peters of Genesee; N. Lapham of Clinton; John Winslow of Jefferson; E. Sherrill of Ontario; Samuel Thorne of Dutchess.

Watertown being the only place which applied for the next Annual Fair, it was "*Resolved*, That the subject of selecting the place for holding the next fair be referred to the Executive Committee."

The Report of the Committee on Nomination was accepted at the Afternoon Session, and the officers as given in the above list were elected. The resolution offered in the morning by Hon. T. C. PETERS, respecting the holding of an Exhibition for a trial of Agricultural Implements, was amended so that the Exhibition be held in July or August, and, on motion of Hon. WILLIAM KELLY, referred to the Executive Committee.

The Society met again, at 7½ o'clock, evening, in the Assembly Chamber.

Dr. ASA FITCH, Entomologist to the Society, read an interesting paper on the entomological peculiarities of the past season, some of the suggestions contained in which we regard as so important, that we shall hereafter publish Dr. F.'s remarks at length, in the columns of the COUNTRY GENTLEMAN.

Mr. J. STANTON GOULD of Hudson, followed with a paper on Grasses, and their Cultivation. [Adjourned.]

During the following day discussions were held at the Society's Rooms, Ex-President CONGER in the chair. Although the attendance was limited, the questions under consideration were talked over in an instructive and interesting way.

During the day the Exhibition at the Rooms was frequented by numerous visitors. The articles shown, like the attendance, were less numerous than has sometimes been the case, but the quality of the Dairy Products, Fruit, Grain, &c., was such as to meet with high commendation. The following is the list of awards:—

PREMIUMS AWARDED.

GRAIN FARMS.—1st. A. B. Benham, Dryden, Tompkins, Co., $50.

BUTTER DAIRY FARM.—1st. Robert Harvey, Leyden, Lewis Co., $50.

CHEESE DAIRY FARM.—1st. Leonard S. Standring, Deer River, Lewis Co., $50.

DRAINING.—A. H. Buck, Lowville, for draining Peat Swamp, $10.

DISCRETIONARY.—A. H. Buck, Lowville, Lewis Co., Cheese Dairy Farm, S. Medal...Hiram Olmstead, Walton, Delaware Co., Butter Dairy, $10.

AGRICULTURAL STATISTICS.—Tompkins Co. Ag. Society, for Ag. Statistics of the county, $30...Ithaca Farmer's Club, do. of the town, $20.

SPECIMENS OF GRASSES, pressed.—Mrs. Isaac Clement, Mechanicsville, 100 varieties, $15.

FIELD CROPS.

SPRING WHEAT.—Best crop, Clift Eames, Rutland Jefferson Co., 3 acres and 52 rods, 101 bushels, $15. Hiram Olmstead, Walton, Delaware Co., presented a crop of 57¼ bushels, raised on 2 acres and 18 rods. The crop did not reach the requirements of the Society as to amount per acre, (30 bushels,) therefore not awarded any regular premium, Trans.

RYE.—Best. C. L. Kiersted, Kingston, Ulster Co., 2 acres, 86 bushels, $15...2d. C. L. Kiersted, do. do. 6 acres and 5-100, 198 bushels, $10.

BUCKWHEAT.—C. W. Eells, Lairdsville, Oneida Co., 1 acre 4 p., 31 9-48 bushels, $8. Hiram Olmstead, Walton, Delaware Co., raised 31⅛ bushels buckwheat, on 112 rods land. The amount of land required to be cultivated was 1 acre. He fell short in the amount of land, but the yield of grain exceeded the amount required for an acre. Awarded a discretionary premium of $6.

BARLEY.—Best. Hiram Mills, Lowville, Lewis Co., 2 acres, 103¼ bushels, $15.

OATS.—C. L. Kiersted, Kingston, Ulster Co., 3 and 54-100 acres, 308½ bushels, $15...2d. Ira R. Peck, East Bloomfield, Ontario Co., 15 acres, 1,284 bushels, $10.

PEAS—Best. E. C. Peck, East Bloomfield, Ontario Co., 1 88-100 acres, 92 bushels, $8.

SPECIAL PREMIUMS.

C. L. Kiersted, Kingston, Ulster Co., grass crop, 4 tons 1,720 pounds per acre, Trans...Solomon Walrath, Clinton, St. Lawrence Co., Scotch wheat, Trans...Solomon Walrath, Canton, St. Lawrence, Co., Bradford Wheat, Bridgman.

The committee on "ROOT CROPS" report as follows, after having examined the several statements presented by the competitors.

1st. Sylvanus Burtis, Oaks Corners, Ontario Co., 1 acre Potatoes, 264 bushels, $8...2d. E. S. Hayward, Rochester, 1 67-100 acres Potatoes, 349 bushels, $5.

DISCRETIONARY.—Hiram Olmstead, Walton, Delaware Co., raised 955 bushels ruta bagas from 135 rods land, and 254 bushels carrots from 44 rods land, $8.

Although Mr. Olmstead's survey does not show that the quantity of land occupied in raising both the crops of Ruta Baga and Carrots amounted to the area designated in the rules of the Society, and hence in that fails to come within the rules, but does, nevertheless, exceed the limits of the product on a larger quantity of land, which justly entitles him to the appellation of a "good farmer," and the committee recommend a premium on both crops.

The committee exceedingly regret to see the meagre competition in this department of farming in the Empire State, as the liberal premiums offered, and the spirit of emulation which ought to be aroused, should be sufficient inducement to the farmers of the State to fill the capacious Agricultural Rooms with products at each annual meeting, to its utmost capacity. The farmers of the State should not relax their efforts at well-doing, but redeem themselves from stolid indifference, by competition and comparison in the various products of the farm and the garden, and join in the effort to advance their calling.

GRAINS AND SEEDS.

(One bushel of Grain exhibited of each variety.)

WINTER WHEAT.—Best. A. I. Pine, Pittstown, Rens. Co., $3...2d. C. W. Eells, Lairdsville, Oneida Co., $2...3d. E. S. Hayward, Rochester, $1.

SPRING WHEAT.—Best. C. W. Eells, Lairdsville, Oneida Co., $3...2d. A. I. Pine, Pittstown, Rens. Co., $2...3d. D. W. C. De Forest, De Friestville, Rens. Co., $1.

RYE.—Best. E. S. Hayward, Rochester, $3...2d. A. I. Pine, Pittstown, Rens. Co., $2.

BARLEY, 4-ROWED.—Best. Hiram Mills, Lowville, Lewis Co., $3...2d. C. Oaks, Oaks Corners, Ontario Co., $2...3d. H. Wier, Johnsonville, Rens. Co., $1.

BARLEY, 2-ROWED.—Best. A. H. Buck, Lowville, Lewis Co., $3.

DISCRETIONARY.—E. Merriam, Leyden, Lewis Co., Russian Barley, Trans.

DISCRETIONARY.—Oliver Van Valen, Cortland, Cortland Co., 1 quart English turnip seed, Trans...Mrs. H. Wier, Johnsonville, Rens. Co., 15 varieties Corn in the ear, Downing...Samples "California" and "Broom Corn" Millet, Trans.

BUTTER.

Best 3 tubs Butter, J. S. Holbert, Chemung, $15...2d. Mrs. E. Merriam, Leyden, Lewis Co., $10.

BUTTER MADE IN JUNE, AUG. AND NOV.—Best 3 tubs, Wm. Pugh, Turin, Lewis Co., $15.

WINTER BUTTER.—Best. Clift Eames, Rutland, Jeff. Co., $5...2d. A. I. Pine, Pittstown, Rens. Co., $3...3d. C. W. Eells, Lairdsville, Oneida Co.. Trans.

CHEESE.

Best, Clift Eames, Rutland, Jeff. Co., $15...2d. Moses Eames, Rutland, Jeff. Co., $10.

FRUITS.

APPLES.—Best collection, 40 varieties, Ellwanger & Barry, Rochester, $4...Best 16 varieties, Wm. H. Slingerland, Normanskill, Albany Co., $3...2d. A. I. Pine, Pittstown, Rens. Co., Barry and $1...Best dish, D. W. C. De Forest, De Friestville, Rens. Co., S. S. Medal.

PEARS.—Best collection, 41 varieties, Ellwanger & Barry, Rochester, Dip. and S. Medal.

Best variety of GRAPES.—Robert P. Wiles, Albany, S. S. Medal.

WINE.—Dr. Presbrey of Buffalo exhibited samples of Isabella Wine, 2 years old, which was highly commended by several gentleman judges of wine, and awarded a Silver Medal...C. N. Bement, Po'keepsie, was awarded Silver Medal for Apple, Catawba and Currant Wines.

DISCRETIONARY.

D. A. Bulkeley, Williamstown, Mass., 18 varieties Corn in ear, Downing...Samples Seedling Potatoes, yield last season 584 bushels per acre, Bridgman.

Wm. H. Slingerland, Normanskill, Carrots and Mangel Wurtzel, Trans.

D. L. Halsey, Victory, Cayuga Co., 3 Rouen Ducks, "dressed," S. Med.

N. Van Auken, Cohoes, Van Auken's Washing Machine, S. S. Med.

Marcus Pratt, Ireland's Corners, Albany Co., Victor Straw Cutter, S. S. Med.

Miss Lucy N. Andrus, Turin, Lewis Co., Pencil Drawing Lewis Co. Fair Buildings, S. S. Med.

D. B. Prindle, East Bethany, Corn-Planter, S. S. Med.

ESSAY ON IRRIGATION.

A valuable practical Essay on Irrigation was presented, and is in the hands of the Committee on Essays, and the Essay will appear in the Transactions with report of the Committee.

Thursday evening the Society was again convened, President HUNTINGTON in the chair. The first business was the reading of the foregoing List of Prizes. A communication was received from the Governor, by his Private Secretary, acknowledging the invitation of the Society to attend at its sessions, and expressing his earnest approbation of its objects.

The President, Hon. B. N. HUNTINGTON, next delivered his Address, on retiring from the duties of the chair, reviewing the operations of the year, and concluding with some hints of practical importance to the farmers of the State. He then introduced the President elect, Hon. GEORGE GEDDES, who addressed the Society.

On motion of Mr. CONGER, the thanks of the Society were presented to the late President, Mr. HUNTINGTON, for the faithful discharge of his duties, and for his address of this evening.

Hon. Mr. CONGER then addressed the Society on the subject of the Pleuro-pneumonia, and offered the following resolution:—

Resolved, That the intelligence of the existence of this disease in the vicinity of the city of Albany, be referred to the Executive Committee, and that they be requested to make such investigation of the same, and take such action in regard to it as in their judgment the great importance of the subject to the State of New-York requires.

This resolution was debated by Messrs. Peters, Johnson, Prentice, Wood, and Bathgate, and adopted.

On motion of Mr. WAINWRIGHT, the thanks of the Society were presented to the Secretary for the admirable discharge of his duties during the preceding year, after which an adjournment was voted.

DEATH OF CHERRY TREES.

Can you tell me what causes my dwarf cherries, of the Early Richmond variety, to lose their bark on the side which is exposed to the sun? I planted 150 trees of three varieties—Early Richmond, May Duke and Large Morello, and have never lost a tree of the last two mentioned, while eight or ten of the Early Richmond die every year. Is it because they are budded on Mazzard stock? I don't know that they are; I merely suppose so from reading the remarks of Mr. Townsend in your issue of Jan. 17, that some varieties do not succeed well on Mazzard stock.

Nashville, Tenn. J. B. K.

The Mazzard and Heart cherries do not succeed in the western or south-western portions of the country. The Early Richmond being a slow growing (although very hardy) sort, is probably worked standard height on Mazzard stocks—if this is the case, it is this kind of stock no doubt that perishes. Whether this is so, or whether the Early Richmond bark itself is affected, the best remedy is to drain thoroughly and to cover the stems from the sun and winds, by low branching. It may not be practicable to accomplish this with the trees now planted out, but it may be with others in future. Shading the stems by tying straw on loosely, may be useful, but we cannot promise much from it, if the Mazzard stock has been used and worked at some height. We should have more confidence in thorough underdraining.

[For the Cultivator and Country Gentleman.]

EXTRAORDINARY YIELD OF HONEY.

MESSRS. TUCKER—I beg leave to communicate for your columns a remarkable achievement of a swarm of bees, owned by me, last summer.

On the 9th of June last, a large and strong stock came out of a hive two years old, and were put into one of Eddy's Patent Hives that had been left with me on trial by one of Mr. Niver's agents. Being suspicious of all sorts of patent improvements and humbugs that go about the country begging a market, and this hive seemed so plainly constructed, so simple in principle, and so nearly like some I already had, that it was only after the most urgent solicitation and strong assurances that I consented to try it.

Upon examination a week after the bees were put in, I found the hive nearly filled with nice new comb and a large portion of it filled and capped over.

I then opened the boxes above the body of the hive and the bees at once commenced operations in them. A few days after I was surprised and pleased at the rapidity with which they were being filled. At the end of the season I had taken off eight boxes of honey, weighing in the aggregate *seventy-four pounds*, exclusive of weight of boxes. The yield was obtained without feeding or any artificial process whatever, or extra care on my part, except to see that ample working room was constantly supplied. Many persons have inquired if I have not robbed my bees of their winter's supply. To-day, 16th of February, I have weighed the hive and contents, and find the weight to be sixty-two pounds—the bees when disturbed are active and numerous. I did not take the precaution to weigh the hive before putting the bees in, but think it could not have weighed more than thirty pounds. I think the honey will hold out till spring opens.

I attribute the large yield from this swarm to the following causes:

It was a large and healthy swarm.

It was hived early, 9th of June.

The construction of the hive is such that the bees have ample and easy access to the boxes.

Some of my other hives yielded from five to twenty-five pounds each, those yielding most that were nearest like the Eddy hive in its peculiar structure. WM. H. RICE.

Caughdenoy, Feb. 16, 1861.

[For the Country Gentleman and Cultivator.]

Welsh Rarebit.

If any reader of the COUNTRY GENTLEMAN wants something good to eat—take a teaspoonful of mustard, half a cup of milk, and a little salt; put in a sauce-pan, and add half a pound of mild cheese; put over a brisk fire and stir until the cheese and milk are thoroughly mixed. Pour on a slice of nicely toasted bread, and, by all means, serve. HAMPDEN.

[For the Country Gentleman and Cultivator.]

To Remove Ink Spots.

I send you a *domestic* receipt for extracting ink spots from *colored* articles of linen, wool, and similar fabric. It is simply to rinse the part so stained, in fresh milk, changing the milk as often as necessary until it, the stain, disappears. As a finale, wash out the milk in pure rain water.

Fairfield Co., Conn., Feb. 11, 1861. T. AUSTIN.

PROFITS OF FARMING.

——, Wisconsin, January, 11, 1861.

My Dear Sir—I am afraid my friend —— has unwittingly led you astray on the subject of my success as a farmer. It is true I have a farm, and have at different periods carried it on, but have never lived on it. My mill is on my farm, and in connection with my mill I have raised crops for fatting cattle and hogs, and have raised flax to some extent for the seed alone, making the seed into linseed oil in my mill. This I have done, hiring all my labor, and furnishing teams and materials. But of the real hard work, and watchful care, and self-denial, together with the untiring industry that of necessity belongs to the successful farmer, I am almost entirely ignorant. Except when a farm is large and capital at command, I consider farming the most laborious and least profitable of almost any branch of labor. If I could cultivate 2,000 or 3,000 acres of wheat, and raise enough other crops for my own consumption, and that of the farm's, then I might like farming. But the man who makes his living from 160 acres of land by cultivating it as a farm, of necessity lives a hard life. It is hard for the farmer, for he must make his profits by his own labor, and be up early and late, leaving no broken rails in his fence for unruly cattle, and whatever is on hand at the end of the year, in the shape of a surplus from receipts over expenses, will be found to have accrued by saving—literal self-denial. It is hard for the wife—she too must labor, and she will see her delicious butter and savory cream gulped down by unappreciative farm laborers, and sigh for the poetry of life which was so visible in the distance before she tried farming. Don't think of it! The life of the mechanic—the clerk, or the day-laboring man is above and preferable to it. I speak from what I have seen and known. Here in our country town I have seen it tried by dozens who have been brought up and educated to other means of a living, but in no instance can I point to a contented successful farmer who was not educated from his boyhood to that most slavish of all lives, and who toil "from early dawn to dewy eve," and makes labor his pleasure and sleep his only recreation. ——. ——.

Chicago, Ill., Jan. 15, 1861.

Messrs. Editors—You will notice from the above that I wrote my friend, asking what advice he could give, tending to the ensuring of my success on a prairie farm in this state, of 160 acres, supposing that I could command about $2,000 as capital to commence on. Divers article in your paper, and others, represent the advantages of farm life and labor, as a general thing, over other pursuits; and with a decided proclivity to farm pursuits I have looked to the contingency of cultivating my acres, (already my own possession,) and enjoying all that a country home offers. I am aware of the toil necessary—and yet I suppose it to be rather a matter of diligence—of watchful attention rather than of exhausting labor; but I was astounded at the aspect thus above set before me. Now, Messrs. Editors, will you be kind enough to give, in your paper, a critique of the above, and let me, and others who may be sighing for a farm life, know in plain language what the hopes of any man with a farm of 160 acres paid for, and $2,000 capital to commence operations, may be, and what the rock upon which he may split. Prairie lands are productive. Here is the grandest wheat region in the world. No forests to hew down, nothing but to enclose and plow, and the application of judgment and dili gence.

I would rather pay you or John Johnston $500, cash in hand, for sound practical words of caution, than to rush into a calling tending to subject myself or my family to slavish labor or unhappiness and suffering.

If agriculture is desirable to a man of middle age, of good education, (scientific,) and who has for years labored to post himself in all the theory of farming, who has endeavored to carry on the economy of gardening for some years as the school of the farm—I say, if farming is a desirable occupation I wish to know it beyond a preadventure; and if it is accompanied with great hazards, I wish also to be guarded on that side before I take the step.

I have read your paper for years. I have prepared notes of all valuable hints in your paper, and others, for at least three to four years, and I am thus, with my other reading, prepared to act. Will you now do me the favor to say if I incur more than ordinary hazards in acting according to my desire for a country life. E.

Our friend E. submits a case in which it is somewhat difficult to give advice. We have followed his example, in asking several of *our* farming friends to throw what light they can upon his prospects in undertaking the toils of farm-life; and we think the answers received will not be found wanting either in encouragement or in useful suggestions. We head the list with John Johnston's prompt response:—

Letter from John Johnston, Esq.

Near Geneva, 2nd Feb., 1861.

L. Tucker & Son—Yours of 30th ult. is received, but I am at a loss how to answer. I can pick out a number of gentleman farmers that would give the same advice as E.'s friend gives him; but they are farmers that choose to keep to the house and give their orders; and if they go out occasionally, they are always careful to keep out of the mud with their thin black boots, and very much afraid of getting hay-seed or dust on their fine coats. Now I never knew these farmers to succeed; neither would a merchant, if he only occasionally went into his store, and trusted to his clerks. I know little about store-keeping—in fact nothing, but I notice that those who attend to their stores daily, early and late, are the only ones who succeed. I never knew a farmer to fail if he was not above his business; and I never knew a mechanic who by his own labor ever made an independency, while I have known many farmers begin with very little, and make themselves rich. True, farmers must know their business, or they cannot expect to succeed any more than I could were I to go to the city of Chicago, and be a merchant or broker.

A man who understands his business, and has 160 acres of good land paid for, and $2,000 in cash, if he cannot make a good living and lay up money, ought to have no sympathy. Had I had E.'s cash capital without the land, 40 years ago, I should have thought myself rich. E. don't pretend to be a farmer *bred*, but I have seldom ever seen a man that had a love or taste for farming that did not succeed—and I have known far more men that had only a small capital or scarcely anything to call capital, make more money by farming than those with a larger capital. One or two cases of this kind may be read with interest:

A London merchant tailor came into this neighborhood something over 30 years ago, and bought a farm of 80 or 90 acres—a hard stiff stubborn soil as there was in this part of the country, and built a pretty good house. The farm, house, and two horses and cows, exhausted his capital. After working some two years at farming he got discouraged, went to a gentleman who was a countryman of his own, *but not a farmer*, and who advised him to consult with me. He came and told me what he had done; he had embarked in farming, but he was afraid it was a poor trade in this country. I told him I thought farming was a bad trade in every country to those who did not understand it, and asked him how he thought I would succeed if I was to go to London and undertake making clothes for gentlemen; he said I would never do at all. I told him that I might, if I liked the trade and could make a living until I learned it; and that if he liked farming and could make out a living until he learned it, as he would a trade, he might do very well—if he did not like farming, I would advise him to sell his farm, and I had no doubt but he could sell it at more than it cost him. He said nothing would please him so well as farming, and after some advice from me he went away in better spirits, worked hard for a few years, made money, raised a respectable family, and is now retired from farming, having accidentally got hurt, and lives comfortably on his money.

It takes a long time to make a fortune or an independency on a small farm; a large grazing farm, to those who understand the management of stock, is a sure way of making money. But then it takes a fortune to buy a large farm here; this, however, is not so in Illinois.

I should like also to tell you of a farmer friend of mine in Ohio, who has farmed there, I should judge, nearly 20 years; he is by no means a working farmer—I don't think he ever plowed, hoed, reaped or harrowed a day in his life, yet he makes a great deal of money by farming. He has, I believe, 400 acres of land—a considerable portion of it prairie; he always lets a considerable portion on shares to plant with corn; keeps one pair of horses, two men from 1st of April till November, one through the winter, and this year he feels pretty sure that he has raised 3,000 bushels of grain with his one team and his two men. True his winter wheat was sown in 1859, but then he has sown as much last autumn. He keeps over 300 sheep, but he don't feed them as well as I would do. He says corn is money right away, but you have to wait for it when you feed it to sheep or cattle. Now this man lays by money yearly, and is independent as to money matters, and I don't think he had any capital but his land to start with. This is one instance where a farmer has made money that is afraid to take off the polish from his boots or soil his clothes with labor. I believe he generally sows his own grain, but I don't think he ever washed or sheared a sheep—in fact he lives at ease, and always has done so, perhaps in a greater degree than the gentleman with his mills and his hired men, finding teams, raising flax seed, &c., who gives advice to E. in the above correspondence.

I have not the least doubt but if many men had had the 400 acres I have mentioned they would have made a great deal more money than my friend, but he has made a good deal—*enough*—and lived comfortably and pleasantly, without hard work. Now I can see no reason why your friend E. should not go and do likewise. The gentleman I mention promises, as soon as his corn is threshed, to let me know how much grain he raised on the farm with his own team the last year. I was once on the farm, and the cultivation did not appear any more thorough than his neighbors, and he has neighbors who have, I suppose, made more money than he has, but, as I have said, he has always taken things very easily. I understand he has at last commenced tile draining, and I should have thought him about the last man to put money under ground, unless it had been the hard cash, so that he might keep it safe. He has always taken good care of the cash, although by no means penurious. I could point out many farmers who have done as well, or better; then again I could pick out *more that have done far worse*—a fact which they attribute all to *bad luck*. It provokes me to hear farmers say, if your stock was in my yards they would never do so well, and tell how much they feed, and never get pay for it. With such men there is always a screw loose somewhere, and every man knows if only one wheel is loose in a watch, it is no better than a potato in his pocket, as far as telling the hour is concerned. It is impossible for me to tell *where the wrong is*, unless I were watching them daily; but I know, as far as stock is concerned, it is not often that I have men that I can trust to feed in winter without closely watching them, and *this is one of the main points in farming*. JOHN JOHNSTON.

Inquiries and Answers.

FARM WINDMILLS.—I own a farm, situated five miles from where I live, containing 320 acres of excellent land, on which there is no lasting stock water. Last fall I dug a well twelve feet deep, and procured abundance of water. I went eight feet through the yellow clay, then came to a bed of gravel and sand which was four feet deep. The water raised three feet in the well, and stood at that through the entire dry season. I am satisfied that the well would afford water sufficient to run a stream an inch in diameter during the whole dry season, and never reduce the depth below three feet. I had a pump put in the well, and hired a man to pump water for my stock, but it required a great deal of time to do it. Now what I wish to know is, whether you or any of your worthy subscribers or correspondents know of any kind of machinery which could be used to bring up the water, without being at the constant expense of hiring some one to pump it? And if so, where can it be had, and what would be the cost of it? Is there anything better than a good pump with a windmill attached to it; and if not, what would a windmill of suitable size for a well twelve feet deep cost? Whose patent is the best, and where could it be had? JOHN R. MILLER. *Park Co., Indiana.* [For a large herd of cattle, a windmill with pump would be most convenient and best. The simplest and cheapest kind are represented on pages 224 and 225 of *Thomas' Farm Implements;* but as these are not self-regulators, it is not safe to make them more than four feet in in diameter, or the centrifugal force in high winds will batter them to pieces. One of that size will do about one-half or one-third the amount of labor done by a man, with a pleasant brisk wind, the amount greatly increasing with the velocity of the wind. We have seen some mills of this kind, which were not kept in use for a long time, being probably made too large. Halliday's windmill has been in operation for years, and has succeeded well. One is now seen from our office window, which has run three years and a half, has regulated itself, and needed no care but oiling the working parts. The fans, six in number, are each some eight or ten feet long; when the wind is brisk it elevates a stream two inches in diameter, to a height of about thirty feet. It is used to throw the water from a quarry; it cost about $500, including erection by the manufacturer. The owner says it saves him about $400 a year, which it would be necessary to expend otherwise in pumping out the water—discharging, as it does, when the wind is good, from 500 to 1000 hogsheads in 24 hours. The smallest size of this windmill costs $75, and we would advise our correspondent to procure one. They are made by the Halliday Windmill Company, South Coventry, Ct. On p. 10 current volume of the Co. Gent., a correspondent highly recommends *Elgar's* windmill, but does not state power nor cost.]

COUGH IN CATTLE.—I have an ox ailing since harvest last; he coughs continually and grows poorer, although I feed him well. I wish to know if there is any cure for him. SAMUEL WILSON. *Ill.* [It is hard to say confidently what his disease is without knowing more of his symptoms, or the origin or cause. If tubucular consumption, not much by way of cure can be effected. But whether this or the milder form of chronic cough, the best thing is *good nursing*. Give him good shelter, with pure air, cover him well with a warm blanket, if practicable protecting his legs down to his knees. Give him succulent food, as roots and meshes—best if of ground oats. We question if any medicine would be of much use.]

HYBRIDIZING POTATOES.—In vol. 17, p. 45, CHAS. HUGHES says—"The potatoes I plant are a cross between the Irish Cup and Peach Blow. I hybridized them by planting alternately a Cup and a Peach Blow the first year, and now they are all of a uniform kind." Now, what I wish to know is this: Does he mean to say that the potatoes taken from the ground after such planting, will be a cross between the two kinds planted? or has he left the most important part of the story untold? *I* suppose the *seed* from the ball, after such a mixed planting, would produce a variety partaking of the nature of both parents; but that the potato will hybridize or mix as stated in his article, is new to me, for I have many times planted two kinds in the same hill, and they invariably came out the same two kinds in the fall. If Mr. Hughes' experience is as mine, his article is wanting in explicitness, and would be likely to mislead the inexperienced. G. W. H.

WELLS IN CELLARS.—Wells in cellars should be covered tight in order to prevent their becoming receptacles for vermin of various descriptions that infest most cellars and houses, and thus are liable by falling into them to render the water unfit for domestic uses. If the bottom of a cellar be covered with a cement, as all should be, this should extend over the covering of the well. No other serious evils result from open wells or springs in cellars, but on the other hand, it has been remarked that jack frost is less likely to visit such cellars. The advantages of covering wells closely, whether in or out of cellars, are much greater than those secured by leaving them open. GEORGE.

WELLS IN CELLARS.—W. wants to know—Co. Gent. Jan. 24—what the effect would be upon a cellar, to build a house over a well, and also whether it would injure the well. I have a well in my cellar and have had for nine years, and no better water can be found—so say all that have drank of it. It is cool, sweet and clear, and I have discovered no bad effects from it upon the cellar. Vegetables keep well, and there has never appeared to be any unusual dampness. It is an excellent cellar for keeping milk in warm weather. The well is covered with a platform, and this has a trap-door in the center about two feet square, hung with hinges, so that access can be had to the water in summer when needed in the cellar. A lead pipe passes through the platform into the well, and up through the floor above stairs, and the water is raised with a pump. Previous to occupying my present residence, I owned and occupied a house ten years with a well in the cellar—result the same as above. J. L. R. *Jefferson Co., N. Y.*

PROPAGATION BY CUTTINGS.—Why are fruit trees not propagated by cuttings? R. [In the northern and middle States, common fruit trees will not grow from cuttings in the open air—but by inserting them in a stout portion of root they succeed well—constituting what is commonly termed root grafting. Employing artificial heat would cost more than it would come to.]

GREEN CROPS.—I have six acres of old pasture that I wish to improve. It being so far from home, is an objection to hauling manure to accomplish my object. I have thought of sowing on six cwt. of plaster, and the last of June plow it under, and the last of July sow to buckwheat, and when in the blow, plow that under, and the season following plant with corn. If you, or any of your correspondents, can inform me of a better way, I shall be glad to hear it. E. P. W. *Belchertown, Mass.* [We have no doubt this would be an enriching course, with the understanding that all the growth of the grass is turned in at the summer plowing. We would however propose that a part of the land, instead of being sown with buckwheat, be planted with corn in furrows, three bushels to the acre, as commonly done for corn fodder, and that this crop be plowed in in autumn. It will be old enough for turning under if sown early in summer or at the first plowing. Pulverize the sod well, furrow it one way, three feet apart, strew the corn along the furrows from a half-bushel basket,

and cover it lengthwise with a common harrow—or if the soil is thin and dry, with a good cultivator, the teeth so set as to throw the soil on the row. Cultivate once or twice, no hoeing will be needed; and then plow under by first prostrating the crop with a harrow, and using a chain to the beam if necessary, in covering it. We have known this to do well. Our correspondent will then please report the result on the corn crop next year, by *measuring*.]

Fattening Swine.—In answer to your Kentucky correspondent, I will say I think that the best way to make pork is to fatten spring pigs, keeping them growing as fast as possible from the first, by which means no feed is wasted in keeping them until they are old enough to fatten. By so doing you can make them weigh from 250 to 300 pounds each when they are 9 or 10 months old, and I think they make a better quality of pork than if kept squealing through our cold winters, and fattened the next autumn. We think that we can produce more pork from the Suffolk, for the feed and time of growing, than any other breed, and that is what the farmer wants—the most pork in the shortest time, and at the least expense. J. L. Johnson.

Tare or Vetch.—Where can I get the seed of the winter Tare or Vetch? How do they stand your winter? I want them for soiling cows and horses in spring. Will they be off in time to sow a crop of turnips. A S. *Morpeth, C. W.* [Will some of our readers who have had experience in the matter, answer the above.]

To Remove Old Putty.—I have a quantity of old sash. I would like to extract the glass, so as to be enabled to put the same into new. Do you know of any easy and cheap mode of dissolving the putty? G. H. [Moisten the putty with muriatic acid, and it will soon become soft. Turpentine will loosen it less efficiently, if the putty is not very hard.]

Hedges.—Please inform me the best work extant on hedges and their management. E. F. M. *Amherst, Va.* [Dr. Warder's Book on Hedges, published by C. M. Saxton & Co., is the best. There is a good article, amply illustrated, in the Illustrated Annual Register for 1860.]

Broom Corn.—Can you give me, through your paper, some information as to the best method of raising broom corn? What kind of land suits it best—when to plant it, and at what distance; and also how to gather it? Can you give me the address of a manufacturer of machinery for a broom factory. All information on these subjects will be welcome. A. C. *Knoxville, Tenn.* [Will some of our readers, familiar with the subject, answer this inquiry?]

Phosphorus.—Will you give a receipt for making phosphorus? Please tell through The Cultivator. A Subscriber. [Phosphorus, the chief economical value of which is in making matches, is manufactured from bones, by a complex process, which it would be difficult or impossible without much experience to perform. Our correspondent will find it described in Kane's Chemistry, under the head of Phosphorus. It is mostly made in London and Paris. In the last named city a hundred tons are manufactured annually. It may be purchased of druggists at a few cents per ounce, probably a thousand times as cheap as our correspondent could make it—unless he wishes to make a trade of its manufacture.]

Size of Tile for Draining.—I am a new hand at farming, and have a farm of 200 acres cleared land, all of which I want to underdrain in time. I have a stream of water running through the farm suitable to drain into, with a stretch of field at a regular rise from the stream to the line fence, a distance of very near a hundred rods. What I want to know is, will inch tile be sufficient to carry off the water that distance. Dunford. [The statement of two additional particulars would have enabled us to answer with more precision, namely, whether there is not any spot, any water from springs or streams, besides what simply falls from the clouds upon the surface; and secondly, what is the slope or fall of the land towards the stream. A fall of one foot in ten will carry off water more than three times as fast as one foot in a hundred. We think one inch pipe tile is too small for all ordinary draining A half inch displacement at the end would more than half close the bore; the friction in such small pipes is greater and the flow slower, and there is greater danger of obstructions. Two inch pipe costs but little more, and is small enough for draining in general. Where the descent is as much as one foot in ten, a two inch pipe, well laid, and straight, will discharge about 600 or 700 hogsheads of water in 24 hours. A very wet soil contains about 1000 hogsheads per acre. A ditch which drains a strip of land two rods wide must be 80 rods long to drain one acre, and if the slope is one foot in ten it will drain the acre in about a day and a half. Two inch tile would therefore answer well the purpose desired by our correspondent. Smaller tile would be useful, but not so efficient as larger. If the descent is less than we have supposed, two and a half or three inch pipe should be used for the lower part of each drain.]

Time for Pruning Dwarf Pears.—I feel a great interest in the culture of dwarf pear trees, and have been pleased with the directions and illustrations given in the Register for the current year as to pruning. I am, however, at a loss to know what is the proper time or season for this vicinity, when these ought to receive their annual cutting back, in view of making them pyramids. Old Subscriber. *New-York.* [The work is commonly done towards the close of winter, or very early in spring. Where the winters are not severe, and the trees prove perfectly hardy, the work may be done any time after the cessation of growth, and before the approach of the next growing season. As only small shoots are cut off, where trees have been kept in proper shape, the precise time selected is not of great importance, and cannot be very definitely prescribed. These remarks apply to the common annual pruning, and not to the summer pinching.]

Muck as Manure.—When I bought my farm, there was a lake, containing about 60 acres, about one-third of which was on my land. I tried to get my neighbors to join me and drain, but they said it could not be done. The outlet being on my land, I went to ditching, and after spending over $200 I have succeeded; and now you see the benefit I have conferred on my neighbors in draining about 30 acres for one and ten for another, so that they can mow, where two years ago the water stood four to six feet deep. They claim that I have damaged them by taking away their stock water; but I will compost the muck from my ditch, and cart the compost on my fields, to help me pay the damages, if any are awarded. Would it pay to cart clear muck on my fields, the land being sandy and what is called the poorest in the county, and has been cropped about 20 years without manure? The muck is free, so far as I know, from iron, being vegetable matter from the surrounding marshes. D. J. Kershner. *Elkhart Co., Ind.* [It is probable that drawing the muck on the upland would pay well, especially if performed at a season of the year when teams have but little else to do. Give it, say 100 loads or more, per acre. The result will not be so striking as with yard manure, but it will be permanent. If a little lime, or leached or unleached ashes, could be added, they would doubtless prove useful. Some yard manure would be quite a help. A good crop of clover turned in occasionally, in addition to the above, would doubtless soon make fertile land, and bring heavy crops.]

Pork, and Feeding Animals.—What breed of hogs will arrive, in the shortest time, to 250 or 300 lbs., all under the same treatment? (1.) Which is it best, to sell corn at 50 cts. per bushel, or to fat pork at $6 per 100 lbs.? (2.) Will ten bushels of peas put on as much pork as ten bushels of corn? (3.) When feeding peas to hogs, would you soak them or feed them dry on a clean floor? (4.) When feeding potatoes to cows and horses, would you cook them or feed them raw? (5.) J. M. *Morpeth, C. W.* [(1.) We would like the experience of our correspondents on this subject. (2.) With good, easily grown, and easily fattened breeds, regularly fed in comfortable apartments, on ground food, it will be most economical to convert the corn to pork, especially when the value of the manure is taken into the account. (3.) Experiments which have been made, although varying 100 per cent., give a slight average preference to corn. (4.) Grind them, if practicable—but if it cannot be done, soak them. (5.) It does not pay, to cook for horses and cattle.]

Hickok's Straw-Cutter.—What power does Hickok's cutter require to work it, and how much stalks will it cut in an hour? What is its price? J. M. *Morpeth, C. W.* [Two strong men will work it, but a small horse-power is more efficient. A two horse-power does well, although one horse would probably do all that the ordinary capacity of the machine would bear. It will cut some two or three bushels per minute. The price is about $35.]

Colts Whisking their Tails.—In answer to W. J. O. in your columns, for information in regard to breaking a colt from the habit of whisking her tail, I should say take as little notice of it as possible; it may be done for spite, and if so, the less notice that is taken of it the better; but if done when she is spoken to, take some one along and continue in conversation, and she will quit it, or I am mistaken. I have been induced to offer this, thinking probably it may be of some advantage, having tried it successfully in two instances, and bad cases. A Young Farmer. *New-Jersey.*

Profits of Tobacco and Wheat Culture.

Eds. Country Gentleman—In reply to some inquiries of yours last fall, about raising tobacco, I told you I thought it might be justified by the great crop of grain and grass, which, without any subsequent manuring, would follow for several years.

Below I send you a statement of two crops, raised on the farm of a friend of mine, Mr. Elihu Belden of Whately. The crop of tobacco was grown in 1859, and followed by wheat in 1860.

The soil is alluvial—part of a beautiful farm lying on the Connecticut, though not flowed.

The field contained twelve acres. In the spring of 1859, he plowed in 180 loads green barn-yard manure, nine inches deep, and sowed broadcast 8,400 lbs. of Peruvian guano, and harrowed thoroughly both ways. He afterwards, at the time of setting the tobacco plants, used 2,400 lbs. of superphosphate of lime, applied in the hills.

The crop was hoed three times, "wormed," and "suckered." The product was 23,850 lbs. of tobacco.

Expenses.

Interest on land at $100 per acre,	$72.00
180 loads manure at $1.50,	270.00
8,400 lbs. guano at 3 cts.,	252.00
2,400 lbs. superphosphate at 2½c.,	60.00
Entire labor on 12 acres, of preparing land, setting, cultivating, and harvesting,	660.00
Total,	$1,314.00

Returns.

20,250 lbs. prime leaf, at 12½c.,	$2,531.25
3,600 lbs. "fillers," at 4c.,	144.00
	$2,675.25
Cost,	1,314.00
Net profit,	$1,361.25

to be carried to next crop.

After harvesting the tobacco, he plowed the land nine inches deep, and sowed it, Sept. 16, 1859, with 18 bushels of Kentucky white bald wheat. The wheat was harvested July 26, 27, and 28, 1860, with one of Kirby's American Harvesters, and on threshing, yielded 540 bushels of wheat and 36 tons of straw.

The wheat was of an admirable quality. It lodged badly. Some three or four acres, which stood well, being harvested separately, were found to yield 60 bushels to the acre.

Expenses.

18 bushels seed wheat,	$32.40
Labor of plowing, sowing and harvesting,	74.00
	$106.40

Returns.

540 bush. wheat, at $1.62,	$874.80
36 tons straw at $5.00,	180.00
	$1054.80
Cost,	106.40
Net profit,	$948.40
To which add the profit on the tobacco the previous year,	1,361.25
Net profit on two years,	$2,309.65

This is a fair statement, and not exaggerated, for you see the land, which is now stocked down with timothy, will, for three years, bear enormous crops of hay, on the strength of the unexpended manure.

That yield of wheat will hardly be exceeded by your boasted New-York wheatfields, or those of the lime-watery—ague-shaker—miasmatic States west of you.

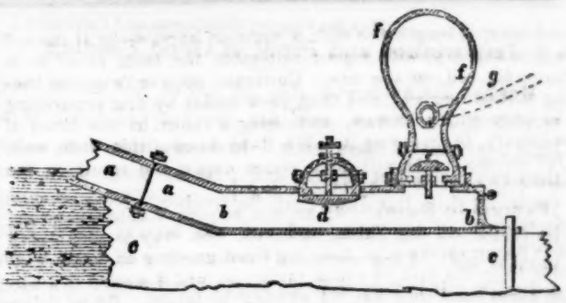
Greenfield, Mass., Feb. 1861. JAMES S. GRENNELL.

[For the Country Gentleman and Cultivator.]

HYDRAULIC RAM.

The hydraulic, or water ram, as it is sometimes called, is an exceedingly useful machine for elevating water to a considerable height. It is simple in construction and not liable to get out of order, and will work incessantly for years without getting out of repair. It requries but a small stream of water with but a few feet of fall to set one in successful operation, the continuance of which depends upon the momentum of the falling stream, which, being confined in a pipe or cistern, is led to a chamber in which valves are placed and act as follows—says Burn:

The supply pipe, *a.a*, leads the running brook or stream to the chamber *b.b*, bolted to the bed plate *c.c*. A valve *d*., is connected to the chamber *b.b*., which has a tendency to fall, so as to keep the water-way open till the stream flowing through the pipe *a.a*. acquires sufficient momentum to close it. The velocity of the stream being thus checked, the water raises the valve *e*, which moves the reverse way of the valve *d*., and enters the air vessel *f.f*., from which it passes off through pipe *g*., which may empty where desired. Water entering the air chamber *f.f*., is pressed upon by the air in the upper part of the vessel, which closes the valve *e*. connecting with the chamber *b.b*. The momentum of the running stream in the pipe *a.a*. and chamber *b.b*. being thus exhausted, the valve *d*. falls and occasions the escape of the water from the chamber *b.b*. through the opening valve *e*. till the flowing stream again acquires such momentum as to close the valve *d.d*. When this happens the valve *e*. is again opened, and a second quantity of water is discharged into the air vessel *f.f*. Thus perpetually is this pulsation of regular beating, accompanied by a clicking sound as the valves *e*. and *d*. alternately rise and fall. The valves may be made to close from 40 to a 100 times a minute, according to the range of motion allowed them, and the pressure of the water.



The power expended in operating one of these machines is the product of the quantity of water used, multiplied by the height through which it falls before it acts upon the machine. The useful effect produced is the product of the quantity of water raised, multiplied by the height to which it is elevated. In some experiments carefully made for this purpose, "the expense was found," said Prof. Loomis, to be to the useful effect as 100 to 64; *i. e., the machine employed usefully nearly two-thirds of its force.*"

Wherever there is a copious spring not more than fifty feet below the house or barn, the water may be delivered where desired, says Prof. Loomis. A well of moderate depth from which the water can be drawn by a siphon may be made to answer the purpose of a spring. Fine jets for ornamental purposes can be cheaply obtained in this way. The ram may be used also for raising water to an elevated cistern, from which it may be made to drive a small turbine, a water motor, of sufficient power to churn, saw wood, turn a grindstone, cut fodder and turnips, and do other light work.

Having written thus far, the writer met a farmer that has used a hydraulic ram about seven years, and he likes it well. It cost him $15. The ram is about fifty rods from the spot where the water is delivered, at an elevation of 35 feet. He has about 8 feet head, and has two rams now, both forcing water through the same pipe; and they have together delivered into the cistern 100 barrels of water in 16 hours. Two feet head of water will work a ram, but more is better. It, with the pipes, must be placed below the frost to insure success. The accompanying cut differs in construction slightly from those manufactured by by W. & B. Douglas of Middletown, Ct., and Cowan & Co., Seneca Falls, N. Y. The principle, however, is the same in all. They may be bought from $5 to $15 apiece, according to size.

The great convenience of having running water at the house and barn should prompt all to secure it, if it can be done without incurring too heavy expense; and where the spring or brook is below the buildings, as is not unfrequently the case, the ram may be used, provided 2 feet fall or more can be secured. Experience and observation both confirm what is claimed for the hydraulic ram, for thus forcing up water where needed for use. The cost can be no objection. George.

[For the Country Gentleman and Cultivator.]

Importance and Profit of Good Feeding.

MESSRS. TUCKERS—On the 1st day of last month, my neighbor, Mr. SWAN, sold ten two-year-old cattle at a little over sixty dollars each. None of them were older than two years last March, and four of them were two years old from last June until September. Nine of them he raised on his farm, and one was bought when four months old. They were only ordinarily well kept when fed milk. It is very difficult to get hired people to attend properly to feeding calves. Either too little or too much feed is injurious. The first winter they had each daily one quart of oil cake meal and good hay. Then good pasture in summer. The next winter they had two quarts each only, of corn meal ground fine, cob and all. (If not ground fine I think the cob injurious.) On the 6th of last May, these and thirteen others, were turned to pasture on a thirty-five acre field, and on the first of June or a few days after, 69 sheep were put on the same field. Some cattle were taken out and others put in in their place; and the thirty-five acres pastured that stock, and made the whole fat, until the last day of Nov. When yarded, the ten cattle were fed six quarts each daily, of fine ground corn and cob meal, until sold on 1st of Jan. I have known Mr. S. to have his two-year-olds more than 100 lbs. each heavier, but never any so fat—four of them coming so late as from the end of June to the 15th Sept., brought down the average weight.

The object of my writing this is to say something about that thirty-five acre field in which they were pastured. I have known it for nearly 40 years, and until Mr. Swan became the owner, it was the least productive field I ever saw in this part of the country. It would neither bring a remunerating crop of grass or grain. I often told the gentleman who owned it 40 years ago, that he ought to manure it, and try to make it produce paying crops, but he thought it would cost too much, and he had plenty of rich land. The next owners did manure a part of it, but still the crops were miserable. When Mr. Swan bought the farm, I advised him not to plow it, but manure it highly and plaster it, and try to make it produce grass. This he did, and he immediately got first rate pasture. After he drained it, he plowed it after another thorough manuring. Still, on a considerable part of it the grain crops were not remunerating; but I never saw land in this country that will grow grass, or grass that feeds any animals that are put on it, better. I am sure that at least one ton of hay could have been made from every acre on the 1st of July after keeping the 23 head of cattle and the 69 sheep, and it would have pastured sheep fairly until the 7th of this month, (Feb.) when we had the thermometer 12 below zero. We have had no snow in this neighborhood to prevent sheep pasturing where the pastures are good, all this winter; but the intense frost on the 7th and 8th inst., without snow to protect the wheat plants, I am afraid will make next harvest a failure; but it is only a small tract around here that had not a covering of snow.

Now farmers can make their own calculations whether it is better to feed cattle as Mr. S. fed his, and sell them for $60 each and upwards, or feed them in the common starvation way, and have them worth from $15 to $20. I know that if these cattle had been properly attended to the first four months, they would have been worth more money. I have known him to sell his cattle at the same age for considerable more money, but beef was then higher, and I presume there was four of them younger this year. I believe it to be a duty every farmer owes his country, to make his land produce all he possibly can, either in grain or stock, and I have never yet seen a farmer who thought he had raised too much after he had marketed his products. JOHN JOHNSTON.

Geneva, 12th Feb., 1861.

A vacant mind is open to all suggestions, as the hollow mountain returns a response to all sounds.

MAPLE SUGAR.

Can you or some of your correspondents tell me what is the best Maple Sugar Evaporator now in use—what its cost, and where it can be bought? Would a box made of plank, with a sheet-iron bottom, be better than a large kettle to boil sap in? What is the best to tap trees with, a gauge or an auger? Please give plain directions to make sugar from maple sap. J. T.

Lake Ridge, Tompkins Co., N. Y.

The chief requisite for success in the manufacture of maple sugar, is that all the vessels be perfectly clean and sweet, and that strict cleanliness be observed throughout the whole process. If well conducted, 100 trees will make about 2 to 300 lbs. of sugar, although sometimes less in unfavorable seasons. Whatever tool is used for tapping, let it be such as to make a small wound in the tree; if a gouge, let it be small; if an auger, of moderate size. Much mutilation of the tree should be carefully avoided. Scald all the vessels and wash them thoroughly; never allow the sap to stand longer than 24 hours; if quite fresh, the sugar will be better. Shallow sheet-iron pans are better than deep cast-iron boilers; they can be kept cleaner; they evaporate more rapidly; and less fuel is consumed. The fire space beneath them should be quite flat, so that a thin sheet of flame may extend over the bottom of the pan; and the flue should be high enough to cause a good draught, and carry the smoke far away. Pans made of Russia iron, turned up at the side five or six inches, are good; such a boiler four feet wide and eight long will do much service. We know of none kept for sale. Plank sides to the pan will do, if the sheet-iron is bent up around the outside and nailed on so as to make it water-tight. The brick "arch" or fire-place should be a little smaller than the pan, to prevent burning the sides. We should prefer the pan made wholly of sheet iron. In either case, the sugar will be burned or injured, if the fire reaches the side of the pan. The sap must be boiled to about one-twentieth or one-thirtieth, to make good syrup. The syrup is then strained through flannel, and placed aside to cool and settle 12 to 24 hours. Then it is placed in the pan again, and a beaten egg and a gill of milk are added to each gallon and stirred, to clarify it, keeping it carefully from boiling till all the scum has risen and is skimmed off. Then boil carefully till it will harden, which may be known by dropping a little into cold water. The liquid sugar may now be poured into proper vessels, and afterwards the cakes placed in a box to drain; or it may be poured at once into hopper-shaped wooden boxes, with a cork in the bottom, which is pulled out when it hardens, and the molasses allowed to drain out. To make the sugar perfectly white, lay a few thicknesses of flannel on the sugar while draining, wet and washed daily with cold water. It will absorb and wash out all the impure coloring matter.

Hungarian Grass Injurious to Horses.

It so happened last season that the crop of meadow hay was very light, and even prairie grass was very scarce, while the crop of Hungarian was unusually good. Consequently many have fed no hay but this latter. This winter there has appeared a disease among horses hitherto unknown here. They very suddenly lose entirely the use of the hind quarters, and cannot stand at all. Four of my immediate neighbors have each had a horse attacked thus; two of them are to-day dead or dying, and one, after being raised by a tackle and slung for a while, is likely to recover. It is a significant fact, that in each of these cases Hungarian hay has been fed exclusively, and it is confidently believed to be the cause of the disease. I hear of many other cases near here, besides these four, but always where Hungarian has been largely fed. My horses have had nothing but *straw and corn* this winter, and are looking and feeling finely. I would prefer *oats* to *corn*, however. N. N. N.

THE CULTIVATOR.

ALBNAY N. Y., MARCH, 1861.

☞ It will be noticed from the Proceedings at the Annual Meeting of our State Agricultural Society, to a full report of which we give this week a considerable portion of our space, that the Hon. GEO. GEDDES of Syracuse has been chosen President for the coming year. With regard to the financial condition of the Society, the receipts at the Elmira Fair, although smaller than has often been the case, were sufficient to cover the Premiums there awarded and the immediate expenses incurred, while for other expenses the Society have been compelled to draw upon the balance left over last year—amount now in the Treasury, $1,792.71.

With regard to the holding of the next Exhibition, there was an application from WATERTOWN presented and strongly pressed upon the Committee upon Nominations, and on the reception of their report in the general meeting, and the reference of the subject of Location to the Executive Board, a second application was presented by Mr. FAXON, on behalf of the citizens of UTICA. When the new Board met on Friday morning, it was voted to postpone the subject until its next session, (to take place in the city of Syracuse, March 21,) in order that an opportunity may be afforded in the interim for the presentation of other applications. The Society's requirements may be ascertained from the Secretary, who will furnish this or any other requisite information to those desiring it.

RECORD OF THE PROGRESSIVE GARDENER'S SOCIETY OF PHILADELPHIA.—This Society was organized about a year since, its object being to promote the steady and intelligent progress of gardening, and the improvement, mental and physical, of gardeners. This "Record," an octavo pamphlet of 130 pages, embraces the doings of the Society for the past year, and includes, among other matters, twelve Essays, read at its monthly meetings, by R. R. Scott, C. H. Miller, Walter Elder, John Landers, Mark Hill, Prof. Stephens, Wm. Grassie, and James Eadie, on subjects of great practical importance. It is a valuable contribuion to our rural literature, and can be procured by enclosing 31 cents in stamps to R. R. SCOTT, 236 Chestnut-st., Philadelphia, Pa.

OATS ON A WHEAT HEAD!—Wilson Rogers, Erie Co., N. Y., writes that last fall he found a wheat head on which were growing three distinct kernels of oats. He inquires if this be something new. Yes, the most surprising novelty in vegetation we have heard. If the specimen be preserved, please forward it—if not, pardon us for thinking there was some mistake, though our informant did "see it with his own eyes."

So says the American Agriculturist. We do not at all wonder at the statement, for some men have powerful imaginations, easily fancying the shrivelled, and perhaps slightly elongated chaff of wheat, to be oats. We were once shown a *petrified bear*,—and were told beforehand that "every part was *perfect*,"—eyes, paws, &c. On seeing it, we perceived at once that it was one of those many *concretions* of various fantastic forms, found in the rocks of Western New-York, and a good deal of fancy could detect little indentations for eyes, and little knobs the ends of very fat paws, projecting slightly from a very fat young bear. We have however seen pudding bags which had nearly as great a resemblance. We have no doubt that the round septaria, found in the Hamilton shales would be at once recognized as petrified alligator's eggs,—the resemblance being much nearer. If the editor of the Agriculturist gets the head in question, we will give him fifty dollars for it, if oats and wheat are both perfect, and there proves to be no trick about it.

☞ Mr. BECK, the celebrated Florist, of Isleworth, England, died suddenly on the 15th of Jan., 1861, aged 57 years.

☞ One object, we believe, with the energetic managers of the Hampden (Mass.) Agricultural Society, in the purchase of their fine grounds at Springfield, was the establishment upon them of a MARKET FAIR—an object as yet never carried out to our knowledge, but now promising to be soon tried. The Republican states that the Society "have resolved to hold a Market Fair each spring and fall, for the display, sale and exchange of produce and stock, either in bulk or by sample"—the first in the series to take place at "Hampden Park" the second Tuesday in April.

"A book for the entry of stock and produce will be opened thirty days before the exhibition, at some convenient place, and every pains taken to make it profitable and pleasant to buyers and sellers. Neighboring societies will be invited to participate in the Fair, although its special object will be the advantage of the farmers in the county. Springfield, from its central location and easy accessibility, affords the best facilities for such a project, and all that is needed will be the co-operation of producers. Let every man, who is willing to sell, come forward with his samples on the 9th of April, and plant himself on Hampden Park."

☞ Messrs. CHARLES & VAN METER of the Albany Centre Market, have purchased of Messrs. Phillips & Wood, ten head of cattle weighing about 10 tons live-weight—among them a pair of four-year old Durham steers said to weigh forty-five hundred, fed by Mr. WADSWORTH on Genesee Flats, which are very superior indeed. The balance are grade oxen, all fed in the same county. The whole will be on exhibition at their stalls in Centre Market, on Friday, next the 22d inst., and Messrs. C. & V. M. extend a cordial invitation to citizens and strangers to call and examine them.

FINE SHEEP.—In our Grazier Department this week, will be found a communication from JURIAN WINNE of this county, one of the most careful sheep feeders in the country. We were at Mr. Winne's a few weeks since, where we found 318 sheep in his yards, consisting of Leicesters and cross-bred Leicesters, feeding for market. They were a beautiful lot, and nearly ready for the butcher. He gave us the weight of seven three-year olds as follows: 292—289—288—240—230—224—219—being an average of 254⅓ lbs. each. Beside these, Mr. Winne has a choice breeding flock of Leicesters, bred mainly from the importations of Mr. SNELL of Canada West, (whose splendid sheep attracted so much attention at the State Fair at Albany,) and Mr. BRODIE of Jefferson Co. Among a lot of nice lambs, we examined one, which at 9½ months old, weighed 187½ lbs.

AG. COLLEGE AT SPRINGFIELD, MASS.—Efforts are making to establish an Agricultural College at Springfield, for which it is proposed to raise $100,000—$25,000 to be raised in that place—$25,000 in other parts of the State, and $50,000 from the State treasury. We hope they will succeed, and we have strong confidence in their success, for when our friends at Springfield take hold of any enterprise they are not apt to fail.

☞ Crosby, Nichols, Lee & Company, Boston, have published "THE PRINCIPLES OF BREEDING: or, Glimpses at the Physiological Laws involved in the Reproduction and Improvement of Domestic Animals. By S. L. GOODALE, Secretary of the Maine Board of Agriculture."

We are indebted to the Author's attention for an early copy, which we have not as yet been able to examine minutely, but judging from the chapters we have read, the work presents in convenient form much information heretofore less accessible to the majority of readers than its importance deserved. Judicious in the selection and careful in the interpretation of his authorities, Mr. Goodale's views are well and concisely expressed; his quotations and conclusions are apparently impartial, and the wide circulation of his treatise would—as its preface remarks—serve "to awaken greater interest upon a matter of vital importance to the agricultural interests of the country." It forms a volume of 164 pages.

BONE DUST FOR BUCKWHEAT.—Last summer I sowed on two acres, a dry gravelly knoll, where I have never got any crop of any amount, four bushels of bone and one bushel of plaster, with buchwheat, and got thirty bushels of buckwheat more than I ever got from the land in fifty years. It is the first of my using artificial manures. I should be satisfied with barnyard manure if I could get enough; but I cannot, and must try artificial manures, and should like to get more information in regard to bone dust, superphosphates, poudrette, &c. G. S. M. *Woodbury, Ct.* [We shall be pleased to hear from any of our readers, the results of any trials they may have made with artificial manures.—EDS.]

THE COUNTRY GENTLEMAN.—I cannot forbear writing to you to express my great gratification with, and deep indebtedness to, your excellent COUNTRY GENTLEMAN. To me it is invaluable. I hardly know what amount of money could induce me to do without it. Being a young farmer, I have always found much in it to cheer me under the discouragements incident to the inexperienced tiller of the soil—much to lead the mind from the grosser part of agriculture, viz., physical labor, to studying nature and nature's laws, and to bring all the appliances of art, and all the discoveries of science to lighten labor, improve the soil, and consequently to raise the comparative social position of the farmer, equal to or superior to that of the most favored class of the community. I have long thought the CO. GENT. far superior to any agricultural paper in the United States. S. N.

MEAT FOR NEW-YORK.—The New-York Times, to whose excellent reports of the New-York Cattle Market, we are indebted mainly for our weekly reports, furnishes tables showing the weekly arrivals of cattle, sheep, &c., for market, in that city, during the year 1860. From these tables we gather the following facts: The average weekly arrivals were—beef cattle, 4,330—milch cows, 138—veal calves, 772—sheep, 9,888—swine, 6,147—making the entire number for the year as follows: beef cattle, 226,747—milch cows, 7,154—calves, 40,162—sheep, 514,191—swine, 319,628, and a grand total of animals of all kinds for the year, of 1,107,882—weekly average of all kinds, 21,395.

The following table shows from whence a portion—as complete as the records will allow—of the beef cattle came:

Illinois,	63,585	Canada,	2,011
Ohio,	35,974	Virginia,	1,069
New-York,	28,449	New-Jersey,	574
Kentucky,	13,137	Connecticut,	536
Indiana,	12,835	Wisconsin,	146
Iowa,	12,174	Texas,	99
Missouri,	7,464	Cherokee Nation,	64
Michigan,	3,260	Massachusetts,	38
Pennsylvania,	2,726		
		Total,	184,081

SORGHUM SUGAR.—Enclosed you will find a specimen of the state premium home-made sugar, from the Imphee, made by J. Grout, Lancaster, Keokuk Co., Iowa. The same party also made the best syrup on exhibition. Improvement in syrup this year over last, at least 25 per cent on the average. W. D. W. [This sugar is of a much better quality than any we have ever before seen made from the Sorghum. If our prairie friends can produce such sugar as this at a reasonable price, they may be sure of a ready market for all they can make.]

FARMING IN CANADA WEST.—A Subscriber at Simcoe, writes us that he is wintering 322 head of sheep, over 200 of them breeding ewes—70 pure bred Leicester ewes—18 Southdown, and 135 Spanish Merinos. He is also wintering 40 head of Durham grade cattle, and 16 head of horses. He says—"I have comfortable shelters for all my stock, and keep them all in good condition. I find this the only way to make stock pay. When I have leisure I will give you my system of managing my 600 acre farm." We hope this promise will not be forgotten.

THE RIGHT SPIRIT.—I am a young farmer just commencing for myself, though I have been raised at the business, and have always had access to the best of agricultural works, yet I am ever striving for a better mode of farming, and more information. I know no other way than to fill my table with the best Agricultural Journals of our country, so I have concluded to send you $2, and add the COUNTRY GENTLEMAN to my list. I hope to have, in a few years, one of the best conducted farms in our state. Any satisfactory experiments I may make, I shall send you as I have other papers. J. H. H. *Hamilton Co., O.*

A PRESENT OF POULTRY.—*Victory, N. Y., Feb. 4.*—MESSRS. L. TUCKER & SON: *Dear Sirs*—With this please find a trio of young Rouen Ducks. They weigh only fifteen pounds. I could have sent you a trio of old ones that would have weighed twenty-four pounds, but perfer to keep the older ones for stock. I have derived great satisfaction and some profit by reading your excellent paper, and take this way to let you know that your labors to advance agriculture are appreciated. D. L. HALSEY. [The ducks, after Exhibition at the Agricultural Rooms during the present week, will be disposed of all the more agreeably, from the complimentary manner in which the present is tendered, and from the recollection of similar attentions received from the same source on several former occasions.]

STRAW FOR HORSES AND OTHER STOCK.—A correspondent of the COUNTRY GENTLEMAN, in a recent private letter, says—"I consider J. L. R. all wrong on the straw question. My five horses have eat no hay this winter, and I have for years fed them principally on straw instead of hay, which I should not do, if not best and cheapest, as I sell a large quantity of hay every year. My cows are being wintered on nothing but straw, chaff and turnips, and have never had calves look so well at this season, though fed hay, meal and shorts—all the good things they could be induced to eat."

ST. LAWRENCE AG. AG. SOCIETY.—The Annual Meeting of this flourishing Society was held at the court house on the 2d Tuesday of January, 1861. The attendance was full and harmonious, but spirited discussions of the various topics introduced, showed that the interest in the Society had no abatement, and altogether it was one of the most pleasant and encouraging meetings the Society ever held. We learn from the Secretary, L. E. B. WINSLOW, Esq., that the receipts of the Society during the past year were over $4,200, and it owns its first purchase of lands free and clear of all incumbrance. The following is the Board of Officers elect for 1861:—

President—CALVIN T. HULBURD, Brasher Falls.
Vice-Presidents—Reuben Nott, Ogdensburgh; Nelson Doolittle, Russel; Joseph Whitney, Madrid; Alexander J. Dyke, Depeyster; George A. Sheldon, Hermon; Charles N. Conkey, Canton; Joseph E. Orvis, Massena; Joseph E. Durphy, Hopkinton; A. Lindsay, D. F. Berry, Mason Spencer, Malone, Franklin Co.; Allen Hinman, Constable, Franklin Co.; George V. Hoyle, Phinney Moore, Timothy Hoyle, Champlain, Clinton Co.; John Sanborn, Plattsburgh, Clinton County.
General Superintendent—Bingham E. Sykes, Canton, St. Lawrence county.
Treasurer—George C. Bogue, Canton.
Secretary—L. E. B. Winslow, Canton.

THE ALBANY CO. AG. SOCIETY, held its annual meeting Jan. 9, when the following were elected officers for ensuing year:

President—WILLIAM HURST.
Vice-President—Harmon V. Strong, Watervleit.
Secretary—John Wilson.
Treasurer—Joseph Hilton, New-Scotland.
Directors for Three Years.—Wm. Tuttle, Coeymans, and John Wagoner of Guilderland; for Two Years—John H. Booth of Bethlehem, H. L. Godfrey of Albany.

Joseph Hilton being a Director of the Society, resigned that position, and Wm. Lape of Watervliet was elected to fill the vacancy for the unexpired term.

CONFINEMENT OF SHEEP IN WINTER.—I read your remarks in the first number of the present vol., under the head of "Care of Sheep in Winter." I like them well. I however differ with you respecting half open sheds. Over thirty years' experience has convinced me that close confinement in warm sheds or barns is better. In localities where there is little or no wind, it is not so essential. In this section of Vermont we have frequent rains in winter, and sheep are sure to stand out in the rain if not pre-

vented by being confined. I wish I could prevail on you to visit this part of Vermont. I believe, by a personal inspection, you will be convinced that close confinement will not injure the health of sheep. JOHN S. PETTIBONE.
Manchester, Vt.

☞ The table of Exports and Imports at the Port of New-York, for January, has just appeared. We copy the figures for Breadstuffs and Provisions exported during the month, as compared with January, 1860, as a sample of the increased business the crops of the past season have placed within the reach of our merchants and transporters:

	1860.	1861.
Flour, bbls.	63,787	205,511
Corn Meal, bbls.,	7,466	8,507
Wheat, bush.	76,019	1,161,649
Corn, bush.	17,863	761,926
Beef, tcs and bbls.	14,654	8,592
Pork, bbls.	10,182	7,592
Bacon, 100 lbs.	30,792	154,122
Lard, 100 lbs.	13,635	68,736
Cheese, 100 lbs.	10,135	45,771
Butter, 100 lbs.,		14,977

The total value of Exports of Domestic Merchandise from New-York during January, 1861, was $10,277,925, against $5,299,542 in January, 1860—or very nearly *twice as great*. The amount of Specie and Bullion received at New-York from Foreign Ports, during January, 1861, was 7,262,229—against exports during the month of only $58,894, showing over $7,200,000 excess in imports over exports of the precious metals.

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